

activemq-cpp-3.1.0

Generated by Doxygen 1.6.2

Tue Feb 9 12:26:28 2010



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# Chapter 1

## Namespace Index

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## Chapter 3

# Data Structure Index

### 3.1 Data Structures

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<b>activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller</b> (Mar- shaling code for Open Wire Format for <b>KeepAliveInfoMarshaller</b> (p. 1941) ) . . . . .	1941
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<b>activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller</b> (Mar- shaling code for Open Wire Format for <b>KeepAliveInfoMarshaller</b> (p. 1949) ) . . . . .	1949
<b>decaf::security::Key</b> (The <b>Key</b> (p. 1953) interface is the top-level interface for all keys )	1953
<b>decaf::security::KeyException</b> . . . . .	1955
<b>activemq::commands::LastPartialCommand</b> . . . . .	1958
<b>activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>LastPartialCommandMar-</b> <b>shaller</b> (p. 1961) ) . . . . .	1961
<b>activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>LastPartialCommandMar-</b> <b>shaller</b> (p. 1965) ) . . . . .	1965
<b>activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>LastPartialCommandMar-</b> <b>shaller</b> (p. 1969) ) . . . . .	1969
<b>activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>LastPartialCommandMar-</b> <b>shaller</b> (p. 1973) ) . . . . .	1973
<b>activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>LastPartialCommandMar-</b> <b>shaller</b> (p. 1977) ) . . . . .	1977
<b>decaf::util::comparators::Less&lt; E &gt;</b> (Simple <b>Less</b> (p. 1981) <b>Comparator</b> (p. 1086) that compares to elements to determine if the first is less than the second ) . .	1981
<b>std::less&lt; decaf::lang::Pointer&lt; T &gt; &gt;</b> (An override of the less function object so that the Pointer objects can be stored in STL Maps, etc ) . . . . .	1983
<b>decaf::util::List&lt; E &gt;</b> (An ordered collection (also known as a sequence) ) . . . . .	1984
<b>decaf::util::ListIterator&lt; E &gt;</b> (An iterator for lists that allows the programmer to traverse the list in either direction, modify the list during iteration, and obtain the iterator's current position in the list ) . . . . .	1990
<b>activemq::commands::LocalTransactionId</b> . . . . .	1993

<b>activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller</b> (Marshaling code for Open Wire Format for <b>LocalTransactionIdMarshaller</b> (p. 1997) ) . . . . .	1997
<b>activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller</b> (Marshaling code for Open Wire Format for <b>LocalTransactionIdMarshaller</b> (p. 2001) ) . . . . .	2001
<b>activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller</b> (Marshaling code for Open Wire Format for <b>LocalTransactionIdMarshaller</b> (p. 2005) ) . . . . .	2005
<b>activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller</b> (Marshaling code for Open Wire Format for <b>LocalTransactionIdMarshaller</b> (p. 2009) ) . . . . .	2009
<b>activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller</b> (Marshaling code for Open Wire Format for <b>LocalTransactionIdMarshaller</b> (p. 2013) ) . . . . .	2013
<b>decaf::util::concurrent::locks::Lock</b> ( <b>Lock</b> (p. 2017) implementations provide more extensive locking operations than can be obtained using synchronized statements )	2017
<b>decaf::util::concurrent::Lock</b> (A wrapper class around a given synchronization mech- anism that provides automatic release upon destruction ) . . . . .	2023
<b>decaf::util::concurrent::locks::LockSupport</b> (Basic thread blocking primitives for creating locks and other synchronization classes ) . . . . .	2025
<b>decaf::util::logging::Logger</b> . . . . .	2028
<b>decaf::util::logging::LoggerHierarchy</b> . . . . .	2037
<b>activemq::io::LoggingInputStream</b> . . . . .	2038
<b>activemq::io::LoggingOutputStream</b> (OutputStream filter that just logs the data being written ) . . . . .	2040
<b>activemq::transport::logging::LoggingTransport</b> (A transport filter that logs com- mands as they are sent/received ) . . . . .	2042
<b>decaf::util::logging::LogManager</b> (There is a single global <b>LogManager</b> (p. 2045) object that is used to maintain a set of shared state about Loggers and log services ) . . . . .	2045
<b>decaf::util::logging::LogRecord</b> . . . . .	2050
<b>decaf::util::logging::LogWriter</b> . . . . .	2055
<b>decaf::lang::Long</b> . . . . .	2057
<b>decaf::internal::nio::LongArrayBuffer</b> . . . . .	2071
<b>decaf::nio::LongBuffer</b> (This class defines four categories of operations upon long long buffers: ) . . . . .	2079
<b>activemq::util::LongSequenceGenerator</b> (This class is used to generate a sequence of long long values that are incremented each time a new value is requested ) .	2090
<b>decaf::net::MalformedURLException</b> . . . . .	2091
<b>decaf::util::Map&lt; K, V, COMPARATOR &gt;</b> ( <b>Map</b> (p. 2094) template that wraps around a std::map to provide a more user-friendly interface and to provide com- mon functions that do not exist in std::map ) . . . . .	2094
<b>cms::MapMessage</b> (A <b>MapMessage</b> (p. 2106) object is used to send a set of name- value pairs ) . . . . .	2106
<b>decaf::util::logging::MarkBlockLogger</b> (Defines a class that can be used to mark the entry and exit from scoped blocks ) . . . . .	2117
<b>activemq::wireformat::MarshalAware</b> . . . . .	2118
<b>activemq::wireformat::openwire::marshal::v2::MarshallerFactory</b> (Used to cre- ate marshallers for a specific version of the wire protocol ) . . . . .	2121
<b>activemq::wireformat::openwire::marshal::v4::MarshallerFactory</b> (Used to cre- ate marshallers for a specific version of the wire protocol ) . . . . .	2122
<b>activemq::wireformat::openwire::marshal::v1::MarshallerFactory</b> (Used to cre- ate marshallers for a specific version of the wire protocol ) . . . . .	2123

<b>activemq::wireformat::openwire::marshal::v3::MarshallerFactory</b> (Used to create marshallers for a specific version of the wire protocol ) . . . . .	2124
<b>activemq::wireformat::openwire::marshal::v5::MarshallerFactory</b> (Used to create marshallers for a specific version of the wire protocol ) . . . . .	2125
<b>decaf::lang::Math</b> (The class <b>Math</b> (p.2126) contains methods for performing basic numeric operations such as the elementary exponential, logarithm, square root, and trigonometric functions ) . . . . .	2126
<b>activemq::util::MemoryUsage</b> . . . . .	2141
<b>activemq::commands::Message</b> . . . . .	2145
<b>cms::Message</b> (Root of all messages ) . . . . .	2163
<b>activemq::commands::MessageAck</b> . . . . .	2188
<b>activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageAckMarshaller</b> (p.2194) ) . . . . .	2194
<b>activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageAckMarshaller</b> (p.2198) ) . . . . .	2198
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<b>activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageAckMarshaller</b> (p.2206) ) . . . . .	2206
<b>activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageAckMarshaller</b> (p.2210) ) . . . . .	2210
<b>cms::MessageConsumer</b> (A client uses a <b>MessageConsumer</b> (p.2214) to received messages from a destination ) . . . . .	2214
<b>activemq::cmsutil::MessageCreator</b> (Creates the user-defined message to be sent by the <b>CmsTemplate</b> (p.1041) ) . . . . .	2218
<b>activemq::commands::MessageDispatch</b> . . . . .	2219
<b>activemq::core::MessageDispatchChannel</b> . . . . .	2224
<b>activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchMarshaller</b> (p.2231) ) . . . . .	2231
<b>activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchMarshaller</b> (p.2235) ) . . . . .	2235
<b>activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchMarshaller</b> (p.2239) ) . . . . .	2239
<b>activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchMarshaller</b> (p.2243) ) . . . . .	2243
<b>activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchMarshaller</b> (p.2247) ) . . . . .	2247
<b>activemq::commands::MessageDispatchNotification</b> . . . . .	2251
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<b>activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchNotificationMarshaller</b> (p.2261) ) . . . . .	2261

<b>activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchNotificationMarshaller</b> (p. 2265) )	2265
<b>activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchNotificationMarshaller</b> (p. 2269) )	2269
<b>activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageDispatchNotificationMarshaller</b> (p. 2273) )	2273
<b>cms::MessageEOFException</b> (This exception must be thrown when an unexpected end of stream has been reached when a <b>StreamMessage</b> (p. 3081) or <b>BytesMessage</b> (p. 938) is being read )	2277
<b>cms::MessageFormatException</b> (This exception must be thrown when a CMS client attempts to use a data type not supported by a message or attempts to read data in a message as the wrong type )	2278
<b>activemq::commands::MessageId</b>	2279
<b>activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageIdMarshaller</b> (p. 2284) )	2284
<b>activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageIdMarshaller</b> (p. 2288) )	2288
<b>activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageIdMarshaller</b> (p. 2292) )	2292
<b>activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageIdMarshaller</b> (p. 2296) )	2296
<b>activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageIdMarshaller</b> (p. 2300) )	2300
<b>cms::MessageListener</b> (A <b>MessageListener</b> (p. 2304) object is used to receive asynchronously delivered messages )	2304
<b>activemq::wireformat::openwire::marshal::v2::MessageMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageMarshaller</b> (p. 2305) )	2305
<b>activemq::wireformat::openwire::marshal::v4::MessageMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageMarshaller</b> (p. 2310) )	2310
<b>activemq::wireformat::openwire::marshal::v3::MessageMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageMarshaller</b> (p. 2315) )	2315
<b>activemq::wireformat::openwire::marshal::v5::MessageMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageMarshaller</b> (p. 2320) )	2320
<b>activemq::wireformat::openwire::marshal::v1::MessageMarshaller</b> (Marshaling code for Open Wire Format for <b>MessageMarshaller</b> (p. 2325) )	2325
<b>cms::MessageNotReadableException</b> (This exception must be thrown when a CMS client attempts to read a write-only message )	2330
<b>cms::MessageNotWriteableException</b> (This exception must be thrown when a CMS client attempts to write to a read-only message )	2331
<b>cms::MessageProducer</b> (A client uses a <b>MessageProducer</b> (p. 2332) object to send messages to a <b>Destination</b> (p. 1480) )	2332
<b>activemq::wireformat::openwire::utils::MessagePropertyInterceptor</b> (Used the base <b>ActiveMQMessage</b> class to intercept calls to get and set properties in order to capture the calls that use the reserved JMS properties and get and set them in the <b>OpenWire</b> Message properties )	2339
<b>activemq::commands::MessagePull</b>	2346
<b>activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller</b> (Marshaling code for Open Wire Format for <b>MessagePullMarshaller</b> (p. 2351) )	2351



<b>activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller</b> (Marshaling code for Open Wire Format for <b>MessagePullMarshaller</b> (p. 2355))	2355
<b>activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller</b> (Marshaling code for Open Wire Format for <b>MessagePullMarshaller</b> (p. 2359))	2359
<b>activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller</b> (Marshaling code for Open Wire Format for <b>MessagePullMarshaller</b> (p. 2363))	2363
<b>activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller</b> (Marshaling code for Open Wire Format for <b>MessagePullMarshaller</b> (p. 2367))	2367
<b>activemq::transport::mock::MockTransport</b> (The <b>MockTransport</b> (p. 2371) defines a base level <b>Transport</b> (p. 3273) class that is intended to be used in place of an a regular protocol <b>Transport</b> (p. 3273) such as TCP )	2371
<b>activemq::transport::mock::MockTransportFactory</b> (Manufactures <b>MockTransports</b> , which are objects that read from input streams and write to output streams )	2382
<b>decaf::util::concurrent::Mutex</b> ( <b>Mutex</b> (p. 2385) object that offers recursive support on all platforms as well as providing the ability to use the standard wait / notify pattern used in languages like Java )	2385
<b>decaf::util::concurrent::MutexHandle</b>	2390
<b>decaf::internal::util::concurrent::MutexImpl</b>	2391
<b>activemq::commands::NetworkBridgeFilter</b>	2393
<b>activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller</b> (Marshaling code for Open Wire Format for <b>NetworkBridgeFilterMarshaller</b> (p. 2397) )	2397
<b>activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller</b> (Marshaling code for Open Wire Format for <b>NetworkBridgeFilterMarshaller</b> (p. 2401) )	2401
<b>activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller</b> (Marshaling code for Open Wire Format for <b>NetworkBridgeFilterMarshaller</b> (p. 2405) )	2405
<b>activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller</b> (Marshaling code for Open Wire Format for <b>NetworkBridgeFilterMarshaller</b> (p. 2409) )	2409
<b>activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller</b> (Marshaling code for Open Wire Format for <b>NetworkBridgeFilterMarshaller</b> (p. 2413) )	2413
<b>decaf::net::NoRouteToHostException</b>	2417
<b>decaf::security::NoSuchAlgorithmException</b>	2420
<b>decaf::lang::exceptions::NoSuchElementException</b>	2423
<b>decaf::security::NoSuchProviderException</b>	2426
<b>decaf::lang::exceptions::NullPointerException</b>	2429
<b>decaf::lang::Number</b> (The abstract class <b>Number</b> (p. 2432) is the superclass of classes <b>Byte</b> (p. 840), <b>Double</b> (p. 1537), <b>Float</b> (p. 1647), <b>Integer</b> (p. 1762), <b>Long</b> (p. 2057), and <b>Short</b> (p. 2906) )	2432
<b>decaf::lang::exceptions::NumberFormatException</b>	2435
<b>cms::ObjectMessage</b> (Place holder for interaction with JMS systems that support Java, the C++ client is not responsible for deserializing the contained Object )	2438
<b>decaf::security_provider::unix::openssl::OpenSSLX500Principal</b> (The <b>OpenSSLX500Principal</b> (p. 2439) wraps around an <b>OpenSSL X509_NAME</b> structure )	2439
<b>decaf::security_provider::unix::openssl::OpenSSLX509Certificate</b>	2442

<b>activemq::wireformat::openwire::OpenWireFormat</b>	2448
<b>activemq::wireformat::openwire::OpenWireFormatFactory</b>	2460
<b>activemq::wireformat::openwire::OpenWireFormatNegotiator</b>	2462
<b>activemq::wireformat::openwire::OpenWireResponseBuilder</b>	2466
<b>activemq::wireformat::openwire::utils::OpenwireStringSupport</b>	2468
<b>decaf::io::OutputStream</b> (Base interface for an output stream )	2470
<b>activemq::commands::PartialCommand</b>	2473
<b>activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>PartialCommandMarshaller</b> (p. 2477) )	2477
<b>activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>PartialCommandMarshaller</b> (p. 2481) )	2481
<b>activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>PartialCommandMarshaller</b> (p. 2485) )	2485
<b>activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>PartialCommandMarshaller</b> (p. 2489) )	2489
<b>activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller</b> (Marshaling code for Open Wire Format for <b>PartialCommandMarshaller</b> (p. 2493) )	2493
<b>decaf::lang::Pointer&lt; T, REFCOUNTER &gt;</b> (Decaf's implementation of a Smart <b>Pointer</b> (p. 2497) that is a template on a Type and is Thread Safe if the default Reference Counter is used )	2497
<b>decaf::lang::PointerComparator&lt; T, R &gt;</b> (This implementation of Comparator is designed to allows objects in a Collection to be sorted or tested for equality based on the value of the Object being Pointed to and not the value of the contained pointer in the <b>Pointer</b> (p. 2497) instance )	2504
<b>activemq::cmsutil::PooledSession</b> (A pooled session object that wraps around a del- egate session )	2505
<b>decaf::util::concurrent::PooledThread</b>	2518
<b>decaf::util::concurrent::PooledThreadListener</b> (Abstract Listener Interface for users of ThreadPool (p. 3175) )	2520
<b>decaf::net::PortUnreachableException</b>	2522
<b>activemq::util::PrimitiveList</b> (List of primitives )	2525
<b>activemq::util::PrimitiveMap</b> (Map of named primitives )	2536
<b>activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller</b> (This class wraps the functionality needed to marshal a primitive map to the Openwire Format's expectation of what the map looks like on the wire )	2546
<b>activemq::util::PrimitiveValueNode::PrimitiveValue</b> (Define a union type com- prised of the various types )	2551
<b>activemq::util::PrimitiveValueConverter</b> (Class controls the conversion of data con- tained in a <b>PrimitiveValueNode</b> (p. 2555) from one type to another )	2553
<b>activemq::util::PrimitiveValueNode</b> (Class that wraps around a single value of one of the many types )	2555
<b>decaf::security::Principal</b> (Base interface for a principal, which can represent an indi- vidual or organization )	2569
<b>decaf::util::PriorityQueue&lt; E &gt;</b> (An unbounded priority queue based on a binary heap algorithm )	2571
<b>activemq::commands::ProducerAck</b>	2579
<b>activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller</b> (Mar- shaling code for Open Wire Format for <b>ProducerAckMarshaller</b> (p. 2583) )	2583

<b>activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerAckMarshaller</b> (p. 2587))	2587
<b>activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerAckMarshaller</b> (p. 2591))	2591
<b>activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerAckMarshaller</b> (p. 2595))	2595
<b>activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerAckMarshaller</b> (p. 2599))	2599
<b>activemq::cmsutil::ProducerCallback</b> (Callback for sending a message to a CMS destination)	2603
<b>activemq::cmsutil::CmsTemplate::ProducerExecutor</b>	2604
<b>activemq::commands::ProducerId</b>	2606
<b>activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerIdMarshaller</b> (p. 2611))	2611
<b>activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerIdMarshaller</b> (p. 2615))	2615
<b>activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerIdMarshaller</b> (p. 2619))	2619
<b>activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerIdMarshaller</b> (p. 2623))	2623
<b>activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerIdMarshaller</b> (p. 2627))	2627
<b>activemq::commands::ProducerInfo</b>	2631
<b>activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerInfoMarshaller</b> (p. 2636))	2636
<b>activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerInfoMarshaller</b> (p. 2640))	2640
<b>activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerInfoMarshaller</b> (p. 2644))	2644
<b>activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerInfoMarshaller</b> (p. 2648))	2648
<b>activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller</b> (Marshaling code for Open Wire Format for <b>ProducerInfoMarshaller</b> (p. 2652))	2652
<b>activemq::state::ProducerState</b>	2656
<b>decaf::util::Properties</b> (Java-like properties class for mapping string names to string values)	2657
<b>decaf::util::logging::PropertiesChangeListener</b> (Defines the interface that classes can use to listen for change events on <b>Properties</b> (p. 2657))	2666
<b>decaf::net::ProtocolException</b>	2667
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<b>cms::Queue</b> (An interface encapsulating a provider-specific queue name ) . . . . .	2674
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<b>decaf::util::Random</b> ( <b>Random</b> (p. 2677) Value Generator which is used to generate a stream of pseudorandom numbers ) . . . . .	2677
<b>activemq::transport::inactivity::ReadChecker</b> (Runnable class that is used by the { ) . . . . .	2682
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# Chapter 5

## Namespace Documentation

### 5.1 activemq Namespace Reference

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#### Namespaces

- namespace **cmsutil**
- namespace **commands**
- namespace **core**
- namespace **exceptions**
- namespace **io**
- namespace **library**
- namespace **state**
- namespace **threads**
- namespace **transport**
- namespace **util**
- namespace **wireformat**

#### 5.1.1 Detailed Description

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## 5.2 activemq::cmsutil Namespace Reference

### Data Structures

- class **CachedConsumer**  
*A cached message consumer contained within a pooled session.*
- class **CachedProducer**  
*A cached message producer contained within a pooled session.*
- class **CmsAccessor**  
*Base class for `activemq.cmsutil.CmsTemplate` (p. 1041) and other CMS-accessing gateway helpers, defining common properties such as the CMS `cms.ConnectionFactory` (p. 1184) to operate on.*
- class **CmsDestinationAccessor**  
*Extends the `CmsAccessor` (p. 1024) to add support for resolving destination names.*
- class **CmsTemplate**  
*`CmsTemplate` (p. 1041) simplifies performing synchronous CMS operations.*
- class **DestinationResolver**  
*Resolves a CMS destination name to a `Destination`.*
- class **DynamicDestinationResolver**  
*Resolves a CMS destination name to a `Destination`.*
- class **MessageCreator**  
*Creates the user-defined message to be sent by the `CmsTemplate` (p. 1041).*
- class **PooledSession**  
*A pooled session object that wraps around a delegate session.*
- class **ProducerCallback**  
*Callback for sending a message to a CMS destination.*
- class **ResourceLifecycleManager**  
*Manages the lifecycle of a set of CMS resources.*
- class **SessionCallback**  
*Callback for executing any number of operations on a provided CMS Session.*
- class **SessionPool**  
*A pool of CMS sessions from the same connection and with the same acknowledge mode.*



## 5.3 activemq::commands Namespace Reference

### Data Structures

- class **ActiveMQBlobMessage**
- class **ActiveMQBytesMessage**
- class **ActiveMQDestination**
- class **ActiveMQMapMessage**
- class **ActiveMQMessage**
- class **ActiveMQMessageTemplate**
- class **ActiveMQObjectMessage**
- class **ActiveMQQueue**
- class **ActiveMQStreamMessage**
- class **ActiveMQTempDestination**
- class **ActiveMQTempQueue**
- class **ActiveMQTempTopic**
- class **ActiveMQTextMessage**
- class **ActiveMQTopic**
- class **BaseCommand**
- class **BaseDataStructure**
- class **BooleanExpression**
- class **BrokerError**

*This class represents an Exception sent from the Broker.*

- class **BrokerId**
- class **BrokerInfo**
- class **Command**
- class **ConnectionControl**
- class **ConnectionError**
- class **ConnectionId**
- class **ConnectionInfo**
- class **ConsumerControl**
- class **ConsumerId**
- class **ConsumerInfo**
- class **ControlCommand**
- class **DataArrayResponse**
- class **DataResponse**
- class **DataStructure**
- class **DestinationInfo**
- class **DiscoveryEvent**
- class **ExceptionResponse**
- class **FlushCommand**
- class **IntegerResponse**
- class **JournalQueueAck**
- class **JournalTopicAck**
- class **JournalTrace**
- class **JournalTransaction**
- class **KeepAliveInfo**
- class **LastPartialCommand**
- class **LocalTransactionId**

- class **Message**
- class **MessageAck**
- class **MessageDispatch**
- class **MessageDispatchNotification**
- class **MessageId**
- class **MessagePull**
- class **NetworkBridgeFilter**
- class **PartialCommand**
- class **ProducerAck**
- class **ProducerId**
- class **ProducerInfo**
- class **RemoveInfo**
- class **RemoveSubscriptionInfo**
- class **ReplayCommand**
- class **Response**
- class **SessionId**
- class **SessionInfo**
- class **ShutdownInfo**
- class **SubscriptionInfo**
- class **TransactionId**
- class **TransactionInfo**
- class **WireFormatInfo**
- class **XATransactionId**

## 5.4 activemq::core Namespace Reference

### Data Structures

- class **ActiveMQAckHandler**

*Interface class that is used to give CMS Messages an interface to Ack themselves with.*

- class **ActiveMQConnection**

*Concrete connection used for all connectors to the ActiveMQ broker.*

- class **ActiveMQConnectionFactory**

- class **ActiveMQConnectionMetaData**

*This class houses all the various settings and information that is used by an instance of an **ActiveMQConnection** (p. 233) class.*

- class **ActiveMQConnectionSupport**

- class **ActiveMQConstants**

*Class holding constant values for various ActiveMQ specific things Each constant is defined as an enumeration and has functions that convert back an forth between string and enum values.*

- class **ActiveMQConsumer**

- class **ActiveMQProducer**

- class **ActiveMQSession**

- class **ActiveMQSessionExecutor**

*Delegate dispatcher for a single session.*

- class **ActiveMQTransactionContext**

*Transaction Management class, hold messages that are to be redelivered upon a request to roll-back.*

- class **DispatchData**

*Simple POJO that contains the information necessary to route a message to a specified consumer.*

- class **Dispatcher**

*Interface for an object responsible for dispatching messages to consumers.*

- class **MessageDispatchChannel**

- class **Synchronization**

*Transacted Object **Synchronization** (p. 3137), used to sync the events of a Transaction with the items in the Transaction.*

## 5.5 activemq::exceptions Namespace Reference

### Data Structures

- class **ActiveMQException**
- class **BrokerException**

## 5.6 activemq::io Namespace Reference

### Data Structures

- class **LoggingInputStream**
- class **LoggingOutputStream**

*OutputStream filter that just logs the data being written.*

## 5.7 activemq::library Namespace Reference

### Data Structures

- class `ActiveMQCPP`

## 5.8 activemq::state Namespace Reference

### Data Structures

- class **CommandVisitor**

*Interface for an Object that can visit the various Command Objects that are sent from and to this client.*

- class **CommandVisitorAdapter**

*Default Implementation of a **CommandVisitor** (p. 1069) that returns NULL for all calls.*

- class **ConnectionState**
- class **ConnectionStateTracker**
- class **ConsumerState**
- class **ProducerState**
- class **SessionState**
- class **Tracked**
- class **TransactionState**

## 5.9 activemq::threads Namespace Reference

### Data Structures

- class **CompositeTask**

*Represents a single task that can be part of a set of Tasks that are contained in a `CompositeTaskRunner` (p. 1092).*

- class **CompositeTaskRunner**

*A `Task` (p. 3148) Runner that can contain one or more `CompositeTasks` that are each checked for pending work and run if any is present in the order that the tasks were added.*

- class **DedicatedTaskRunner**

- class **Task**

*Represents a unit of work that requires one or more iterations to complete.*

- class **TaskRunner**



## 5.10 activemq::transport Namespace Reference

### Namespaces

- namespace **correlator**
- namespace **failover**
- namespace **inactivity**
- namespace **logging**
- namespace **mock**
- namespace **tcp**

### Data Structures

- class **AbstractTransportFactory**  
*Abstract implementation of the **TransportFactory** (p. 3279) interface, providing the base functionality that's common to most of the **TransportFactory** (p. 3279) instances.*
- class **CompositeTransport**  
*A Composite **Transport** (p. 3273) is a **Transport** (p. 3273) implementation that is composed of several Transports.*
- class **DefaultTransportListener**
- class **IOTransport**  
*Implementation of the **Transport** (p. 3273) interface that performs marshaling of commands to IO streams.*
- class **Transport**  
*Interface for a transport layer for command objects.*
- class **TransportFactory**  
*Defines the interface for Factories that create Transports or TransportFilters.*
- class **TransportFilter**  
*A filter on the transport layer.*
- class **TransportListener**  
*A listener of asynchronous exceptions from a command transport object.*
- class **TransportRegistry**  
*Registry of all **Transport** (p. 3273) Factories that are available to the client at runtime.*

## 5.11 activemq::transport::correlator Namespace Reference

### Data Structures

- class **FutureResponse**

*A container that holds a response object.*

- class **ResponseCorrelator**

*This type of transport filter is responsible for correlating asynchronous responses with requests.*

## 5.12 activemq::transport::failover Namespace Reference

### Data Structures

- class **BackupTransport**
- class **BackupTransportPool**
- class **CloseTransportsTask**
- class **FailoverTransport**
- class **FailoverTransportFactory**

*Creates an instance of a **FailoverTransport** (p. 1612).*

- class **FailoverTransportListener**

*Utility class used by the **Transport** (p. 3273) to perform the work of responding to events from the active **Transport** (p. 3273).*

- class **URIPool**

## 5.13 activemq::transport::inactivity Namespace Reference

### Data Structures

- class **InactivityMonitor**
- class **ReadChecker**  
*Runnable class that is used by the {}.*
- class **WriteChecker**  
*Runnable class used by the {}.*

## 5.14 activemq::transport::logging Namespace Reference

### Data Structures

- class **LoggingTransport**

*A transport filter that logs commands as they are sent/received.*

## 5.15 activemq::transport::mock Namespace Reference

### Data Structures

- class **InternalCommandListener**

*Listens for Commands sent from the **MockTransport** (p. 2371).*

- class **MockTransport**

*The **MockTransport** (p. 2371) defines a base level **Transport** (p. 3273) class that is intended to be used in place of an a regular protocol **Transport** (p. 3273) such as TCP.*

- class **MockTransportFactory**

*Manufactures MockTransports, which are objects that read from input streams and write to output streams.*

- class **ResponseBuilder**

*Interface for all Protocols to implement that defines the behavior of the Broker in response to messages of that protocol.*

## 5.16 activemq::transport::tcp Namespace Reference

### Data Structures

- class **TcpTransport**

*Implements a TCP/IP based transport filter, this transport is meant to wrap an instance of an **IOTransport** (p. 1823).*

- class **TcpTransportFactory**

*Factory Responsible for creating the **TcpTransport** (p. 3160).*

## 5.17 activemq::util Namespace Reference

### Data Structures

- class **ActiveMQProperties**

*Implementation of the `CMSProperties` interface that delegates to a `decaf::util::Properties` (p. 2657) object.*

- class **CMSExceptionSupport**
- class **CompositeData**

*Represents a Composite URI.*

- class **LongSequenceGenerator**

*This class is used to generate a sequence of long long values that are incremented each time a new value is requested.*

- class **MemoryUsage**
- class **PrimitiveList**

*List of primitives.*

- class **PrimitiveMap**

*Map of named primitives.*

- class **PrimitiveValueConverter**

*Class controls the conversion of data contained in a `PrimitiveValueNode` (p. 2555) from one type to another.*

- class **PrimitiveValueNode**

*Class that wraps around a single value of one of the many types.*

- class **URISupport**
- class **Usage**



## 5.18 activemq::wireformat Namespace Reference

### Namespaces

- namespace **openwire**
- namespace **stomp**

### Data Structures

- class **MarshalAware**
- class **WireFormat**  
*Provides a mechanism to marshal commands into and out of packets or into and out of streams, Channels and Datagrams.*
- class **WireFormatFactory**  
*The **WireFormatFactory** (p. 3367) is the interface that all **WireFormatFactory** (p. 3367) classes must extend.*
- class **WireFormatNegotiator**  
*Defines a **WireFormatNegotiator** (p. 3399) which allows a **WireFormat** (p. 3363) to.*
- class **WireFormatRegistry**  
*Registry of all **WireFormat** (p. 3363) Factories that are available to the client at runtime.*

## 5.19 activemq::wireformat::openwire Namespace Reference

### Namespaces

- namespace **marshal**
- namespace **utils**

### Data Structures

- class **OpenWireFormat**
- class **OpenWireFormatFactory**
- class **OpenWireFormatNegotiator**
- class **OpenWireResponseBuilder**

## 5.20 activemq::wireformat::openwire::marshal Namespace Reference

### Namespaces

- namespace **v1**
- namespace **v2**
- namespace **v3**
- namespace **v4**
- namespace **v5**

### Data Structures

- class **BaseDataStreamMarshaller**  
*Base class for all Marshallers that marshal DataStructures to and from the wire using the OpenWire protocol.*
- class **DataStreamMarshaller**  
*Base class for all classes that marshal commands for Openwire.*
- class **PrimitiveTypesMarshaller**  
*This class wraps the functionality needed to marshal a primitive map to the Openwire Format's expectation of what the map looks like on the wire.*

## 5.21 `activemq::wireformat::openwire::marshal::v1` Namespace Reference

### Data Structures

- class **ActiveMQBlobMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBlobMessageMarshaller` (p. 181).*
- class **ActiveMQBytesMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBytesMessageMarshaller` (p. 217).*
- class **ActiveMQDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQDestinationMarshaller` (p. 289).*
- class **ActiveMQMapMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMapMessageMarshaller` (p. 326).*
- class **ActiveMQMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMessageMarshaller` (p. 349).*
- class **ActiveMQObjectMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQObjectMessageMarshaller` (p. 390).*
- class **ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQQueueMarshaller` (p. 427).*
- class **ActiveMQStreamMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQStreamMessageMarshaller` (p. 483).*
- class **ActiveMQTempDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempDestinationMarshaller` (p. 507).*
- class **ActiveMQTempQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempQueueMarshaller` (p. 532).*
- class **ActiveMQTempTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempTopicMarshaller` (p. 557).*
- class **ActiveMQTextMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTextMessageMarshaller` (p. 582).*
- class **ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTopicMarshaller` (p. 606).*
- class **BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for `BaseCommandMarshaller` (p. 664).*
- class **BrokerIdMarshaller**

*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 759).*

- class **BrokerInfoMarshaller**

*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 787).*

- class **ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1144).*

- class **ConnectionErrorMarshaller**

*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1168).*

- class **ConnectionIdMarshaller**

*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1195).*

- class **ConnectionInfoMarshaller**

*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1225).*

- class **ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1263).*

- class **ConsumerIdMarshaller**

*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1288).*

- class **ConsumerInfoMarshaller**

*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1313).*

- class **ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1342).*

- class **DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1367).*

- class **DataResponseMarshaller**

*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1402).*

- class **DestinationInfoMarshaller**

*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1501).*

- class **DiscoveryEventMarshaller**

*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1531).*

- class **ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1589).*

- class **FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1683).*

- class **IntegerResponseMarshaller**

*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1784).*

- class **JournalQueueAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1850).*
- class **JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1867).*
- class **JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1898).*
- class **JournalTransactionMarshaller**  
*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1922).*
- class **KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1949).*
- class **LastPartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1965).*
- class **LocalTransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2009).*
- class **MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*
- class **MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2210).*
- class **MessageDispatchMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2243).*
- class **MessageDispatchNotificationMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2269).*
- class **MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2300).*
- class **MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2325).*
- class **MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2359).*
- class **NetworkBridgeFilterMarshaller**  
*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2409).*
- class **PartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2489).*
- class **ProducerAckMarshaller**

*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2599).*

- class **ProducerIdMarshaller**

*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2623).*

- class **ProducerInfoMarshaller**

*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2652).*

- class **RemoveInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2707).*

- class **RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2740).*

- class **ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2772).*

- class **ResponseMarshaller**

*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2806).*

- class **SessionIdMarshaller**

*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2861).*

- class **SessionInfoMarshaller**

*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2885).*

- class **ShutdownInfoMarshaller**

*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2937).*

- class **SubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3102).*

- class **TransactionIdMarshaller**

*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3224).*

- class **TransactionInfoMarshaller**

*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3253).*

- class **WireFormatInfoMarshaller**

*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3387).*

- class **XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3427).*

## 5.22 activemq::wireformat::openwire::marshal::v2 Namespace Reference

### Data Structures

- class **ActiveMQBlobMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 193).*
- class **ActiveMQBytesMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 229).*
- class **ActiveMQDestinationMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 301).*
- class **ActiveMQMapMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 338).*
- class **ActiveMQMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 361).*
- class **ActiveMQObjectMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 402).*
- class **ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 439).*
- class **ActiveMQStreamMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 495).*
- class **ActiveMQTempDestinationMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 519).*
- class **ActiveMQTempQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 544).*
- class **ActiveMQTempTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 569).*
- class **ActiveMQTextMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 594).*
- class **ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 618).*
- class **BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 685).*
- class **BrokerIdMarshaller**



*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 771).*

- class **BrokerInfoMarshaller**

*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 799).*

- class **ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1156).*

- class **ConnectionErrorMarshaller**

*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1180).*

- class **ConnectionIdMarshaller**

*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1207).*

- class **ConnectionInfoMarshaller**

*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1233).*

- class **ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1271).*

- class **ConsumerIdMarshaller**

*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1296).*

- class **ConsumerInfoMarshaller**

*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1325).*

- class **ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1350).*

- class **DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1375).*

- class **DataResponseMarshaller**

*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1414).*

- class **DestinationInfoMarshaller**

*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1489).*

- class **DiscoveryEventMarshaller**

*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1515).*

- class **ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1585).*

- class **FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1679).*

- class **IntegerResponseMarshaller**

*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1780).*

- class **JournalQueueAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1838).*
- class **JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1863).*
- class **JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1886).*
- class **JournalTransactionMarshaller**  
*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1910).*
- class **KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1933).*
- class **LastPartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1961).*
- class **LocalTransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 1997).*
- class **MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*
- class **MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2194).*
- class **MessageDispatchMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2231).*
- class **MessageDispatchNotificationMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2257).*
- class **MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2284).*
- class **MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2305).*
- class **MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2351).*
- class **NetworkBridgeFilterMarshaller**  
*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2397).*
- class **PartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2477).*
- class **ProducerAckMarshaller**

*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2583).*

- class **ProducerIdMarshaller**

*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2611).*

- class **ProducerInfoMarshaller**

*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2636).*

- class **RemoveInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2715).*

- class **RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2736).*

- class **ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2756).*

- class **ResponseMarshaller**

*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2791).*

- class **SessionIdMarshaller**

*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2865).*

- class **SessionInfoMarshaller**

*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2881).*

- class **ShutdownInfoMarshaller**

*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2949).*

- class **SubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3118).*

- class **TransactionIdMarshaller**

*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3220).*

- class **TransactionInfoMarshaller**

*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3261).*

- class **WireFormatInfoMarshaller**

*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3379).*

- class **XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3415).*

## 5.23 activemq::wireformat::openwire::marshal::v3 Namespace Reference

### Data Structures

- class **ActiveMQBlobMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 177).*
- class **ActiveMQBytesMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 213).*
- class **ActiveMQDestinationMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 285).*
- class **ActiveMQMapMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 322).*
- class **ActiveMQMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 345).*
- class **ActiveMQObjectMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 386).*
- class **ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 423).*
- class **ActiveMQStreamMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 479).*
- class **ActiveMQTempDestinationMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 503).*
- class **ActiveMQTempQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 528).*
- class **ActiveMQTempTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 553).*
- class **ActiveMQTextMessageMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 578).*
- class **ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 602).*
- class **BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 657).*
- class **BrokerIdMarshaller**

*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 755).*

- class **BrokerInfoMarshaller**

*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 783).*

- class **ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1140).*

- class **ConnectionErrorMarshaller**

*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1164).*

- class **ConnectionIdMarshaller**

*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1191).*

- class **ConnectionInfoMarshaller**

*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1217).*

- class **ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1255).*

- class **ConsumerIdMarshaller**

*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1280).*

- class **ConsumerInfoMarshaller**

*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1309).*

- class **ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1334).*

- class **DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1359).*

- class **DataResponseMarshaller**

*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1398).*

- class **DestinationInfoMarshaller**

*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1493).*

- class **DiscoveryEventMarshaller**

*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1519).*

- class **ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1593).*

- class **FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1687).*

- class **IntegerResponseMarshaller**

*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1788).*

- class **JournalQueueAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1846).*
- class **JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1871).*
- class **JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1894).*
- class **JournalTransactionMarshaller**  
*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1914).*
- class **KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1941).*
- class **LastPartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1969).*
- class **LocalTransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2001).*
- class **MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*
- class **MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2202).*
- class **MessageDispatchMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2239).*
- class **MessageDispatchNotificationMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2265).*
- class **MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2292).*
- class **MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2315).*
- class **MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2355).*
- class **NetworkBridgeFilterMarshaller**  
*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2401).*
- class **PartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2481).*
- class **ProducerAckMarshaller**

*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2587).*

- class **ProducerIdMarshaller**

*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2615).*

- class **ProducerInfoMarshaller**

*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2640).*

- class **RemoveInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2719).*

- class **RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2744).*

- class **ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2760).*

- class **ResponseMarshaller**

*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2796).*

- class **SessionIdMarshaller**

*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2873).*

- class **SessionInfoMarshaller**

*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2897).*

- class **ShutdownInfoMarshaller**

*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2945).*

- class **SubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3106).*

- class **TransactionIdMarshaller**

*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3236).*

- class **TransactionInfoMarshaller**

*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3249).*

- class **WireFormatInfoMarshaller**

*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3395).*

- class **XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3419).*

## 5.24 `activemq::wireformat::openwire::marshal::v4` Namespace Reference

### Data Structures

- class **ActiveMQBlobMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBlobMessageMarshaller` (p. 185).*
- class **ActiveMQBytesMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBytesMessageMarshaller` (p. 221).*
- class **ActiveMQDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQDestinationMarshaller` (p. 293).*
- class **ActiveMQMapMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMapMessageMarshaller` (p. 330).*
- class **ActiveMQMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMessageMarshaller` (p. 353).*
- class **ActiveMQObjectMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQObjectMessageMarshaller` (p. 394).*
- class **ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQQueueMarshaller` (p. 431).*
- class **ActiveMQStreamMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQStreamMessageMarshaller` (p. 487).*
- class **ActiveMQTempDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempDestinationMarshaller` (p. 511).*
- class **ActiveMQTempQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempQueueMarshaller` (p. 536).*
- class **ActiveMQTempTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempTopicMarshaller` (p. 561).*
- class **ActiveMQTextMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTextMessageMarshaller` (p. 586).*
- class **ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTopicMarshaller` (p. 610).*
- class **BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for `BaseCommandMarshaller` (p. 671).*
- class **BrokerIdMarshaller**



*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 763).*

- class **BrokerInfoMarshaller**

*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 791).*

- class **ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1148).*

- class **ConnectionErrorMarshaller**

*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1172).*

- class **ConnectionIdMarshaller**

*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1199).*

- class **ConnectionInfoMarshaller**

*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1221).*

- class **ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1259).*

- class **ConsumerIdMarshaller**

*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1284).*

- class **ConsumerInfoMarshaller**

*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1317).*

- class **ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1338).*

- class **DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1363).*

- class **DataResponseMarshaller**

*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1410).*

- class **DestinationInfoMarshaller**

*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1497).*

- class **DiscoveryEventMarshaller**

*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1523).*

- class **ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1597).*

- class **FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1691).*

- class **IntegerResponseMarshaller**

*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1792).*

- class **JournalQueueAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1842).*
- class **JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1875).*
- class **JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1890).*
- class **JournalTransactionMarshaller**  
*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1918).*
- class **KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1945).*
- class **LastPartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1973).*
- class **LocalTransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2005).*
- class **MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*
- class **MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2206).*
- class **MessageDispatchMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2235).*
- class **MessageDispatchNotificationMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2261).*
- class **MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2288).*
- class **MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2310).*
- class **MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2367).*
- class **NetworkBridgeFilterMarshaller**  
*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2413).*
- class **PartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2485).*
- class **ProducerAckMarshaller**

*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2591).*

- class **ProducerIdMarshaller**

*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2627).*

- class **ProducerInfoMarshaller**

*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2648).*

- class **RemoveInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2723).*

- class **RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2748).*

- class **ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2768).*

- class **ResponseMarshaller**

*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2811).*

- class **SessionIdMarshaller**

*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2869).*

- class **SessionInfoMarshaller**

*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2889).*

- class **ShutdownInfoMarshaller**

*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2941).*

- class **SubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3114).*

- class **TransactionIdMarshaller**

*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3228).*

- class **TransactionInfoMarshaller**

*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3257).*

- class **WireFormatInfoMarshaller**

*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3391).*

- class **XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3423).*

## 5.25 `activemq::wireformat::openwire::marshal::v5` Namespace Reference

### Data Structures

- class **ActiveMQBlobMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBlobMessageMarshaller` (p. 189).*
- class **ActiveMQBytesMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQBytesMessageMarshaller` (p. 225).*
- class **ActiveMQDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQDestinationMarshaller` (p. 297).*
- class **ActiveMQMapMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMapMessageMarshaller` (p. 334).*
- class **ActiveMQMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQMessageMarshaller` (p. 357).*
- class **ActiveMQObjectMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQObjectMessageMarshaller` (p. 398).*
- class **ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQQueueMarshaller` (p. 435).*
- class **ActiveMQStreamMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQStreamMessageMarshaller` (p. 491).*
- class **ActiveMQTempDestinationMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempDestinationMarshaller` (p. 515).*
- class **ActiveMQTempQueueMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempQueueMarshaller` (p. 540).*
- class **ActiveMQTempTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTempTopicMarshaller` (p. 565).*
- class **ActiveMQTextMessageMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTextMessageMarshaller` (p. 590).*
- class **ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for `ActiveMQTopicMarshaller` (p. 614).*
- class **BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for `BaseCommandMarshaller` (p. 678).*
- class **BrokerIdMarshaller**

*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 767).*

- class **BrokerInfoMarshaller**

*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 795).*

- class **ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1152).*

- class **ConnectionErrorMarshaller**

*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1176).*

- class **ConnectionIdMarshaller**

*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1203).*

- class **ConnectionInfoMarshaller**

*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1229).*

- class **ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1267).*

- class **ConsumerIdMarshaller**

*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1292).*

- class **ConsumerInfoMarshaller**

*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1321).*

- class **ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1346).*

- class **DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1371).*

- class **DataResponseMarshaller**

*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1406).*

- class **DestinationInfoMarshaller**

*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1505).*

- class **DiscoveryEventMarshaller**

*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1527).*

- class **ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1601).*

- class **FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1695).*

- class **IntegerResponseMarshaller**

*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1796).*

- class **JournalQueueAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1854).*
- class **JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1879).*
- class **JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1902).*
- class **JournalTransactionMarshaller**  
*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1926).*
- class **KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1937).*
- class **LastPartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1977).*
- class **LocalTransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2013).*
- class **MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*
- class **MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2198).*
- class **MessageDispatchMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2247).*
- class **MessageDispatchNotificationMarshaller**  
*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2273).*
- class **MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2296).*
- class **MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2320).*
- class **MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2363).*
- class **NetworkBridgeFilterMarshaller**  
*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2405).*
- class **PartialCommandMarshaller**  
*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2493).*
- class **ProducerAckMarshaller**

*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2595).*

- class **ProducerIdMarshaller**

*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2619).*

- class **ProducerInfoMarshaller**

*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2644).*

- class **RemoveInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2711).*

- class **RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2732).*

- class **ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2764).*

- class **ResponseMarshaller**

*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2801).*

- class **SessionIdMarshaller**

*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2857).*

- class **SessionInfoMarshaller**

*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2893).*

- class **ShutdownInfoMarshaller**

*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2953).*

- class **SubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3110).*

- class **TransactionIdMarshaller**

*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3232).*

- class **TransactionInfoMarshaller**

*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3245).*

- class **WireFormatInfoMarshaller**

*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3383).*

- class **XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3431).*

## 5.26 activemq::wireformat::openwire::utils Namespace Reference

### Data Structures

- class **BooleanStream**

*Manages the writing and reading of boolean data streams to and from a data source such as a `DataInputStream` or `DataOutputStream`.*

- class **HexTable**

*The **HexTable** (p. 1715) class maps hexadecimal strings to the value of an index into the table, i.e.*

- class **MessagePropertyInterceptor**

*Used the base `ActiveMQMessage` class to intercept calls to get and set properties in order to capture the calls that use the reserved JMS properties and get and set them in the `OpenWireMessage` properties.*

- class **OpenwireStringSupport**



## 5.27 activemq::wireformat::stomp Namespace Reference

### Data Structures

- class **StompCommandConstants**
- class **StompFrame**

*A Stomp-level message frame that encloses all messages to and from the broker.*

- class **StompHelper**

*Utility Methods used when marshaling to and from StompFrame's.*

- class **StompWireFormat**
- class **StompWireFormatFactory**

*Factory used to create the Stomp Wire Format instance.*

## 5.28 cms Namespace Reference

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### Data Structures

- class **BytesMessage**

*A **BytesMessage** (p. 938) object is used to send a message containing a stream of unsigned bytes.*

- class **Closeable**

*Interface for a class that implements the close method.*

- class **CMSException**

*CMS API Exception that is the base for all exceptions thrown from CMS classes.*

- class **CMSProperties**

*Interface for a Java-like properties object.*

- class **CMSSecurityException**

*This exception must be thrown when a provider rejects a user name/password submitted by a client.*

- class **Connection**

*The client's connection to its provider.*

- class **ConnectionFactory**

*Defines the interface for a factory that creates connection objects, the **Connection** (p. 1131) objects returned implement the CMS **Connection** (p. 1131) interface and hide the CMS Provider specific implementation details behind that interface.*

- class **ConnectionMetaData**

*A **ConnectionMetaData** (p. 1237) object provides information describing the **Connection** (p. 1131) object.*

- class **DeliveryMode**

*This is an Abstract class whose purpose is to provide a container for the delivery mode enumeration for CMS messages.*

- class **Destination**

*A **Destination** (p. 1480) object encapsulates a provider-specific address.*

- class **ExceptionListener**

*If a CMS provider detects a serious problem, it notifies the client application through an **ExceptionListener** (p. 1581) that is registered with the **Connection** (p. 1131).*

- class **IllegalStateException**

*This exception is thrown when a method is invoked at an illegal or inappropriate time or if the provider is not in an appropriate state for the requested operation.*

- class **InvalidClientIdException**

*This exception must be thrown when a client attempts to set a connection's client ID to a value that is rejected by a provider.*

- class **InvalidDestinationException**

*This exception must be thrown when a destination either is not understood by a provider or is no longer valid.*

- class **InvalidSelectorException**

*This exception must be thrown when a CMS client attempts to give a provider a message selector with invalid syntax.*

- class **MapMessage**

*A **MapMessage** (p. 2106) object is used to send a set of name-value pairs.*

- class **Message**

*Root of all messages.*

- class **MessageConsumer**

*A client uses a **MessageConsumer** (p. 2214) to received messages from a destination.*

- class **MessageEOFException**

*This exception must be thrown when an unexpected end of stream has been reached when a **StreamMessage** (p. 3081) or **BytesMessage** (p. 938) is being read.*

- class **MessageFormatException**

*This exception must be thrown when a CMS client attempts to use a data type not supported by a message or attempts to read data in a message as the wrong type.*

- class **MessageListener**

*A **MessageListener** (p. 2304) object is used to receive asynchronously delivered messages.*

- class **MessageNotReadableException**

*This exception must be thrown when a CMS client attempts to read a write-only message.*

- class **MessageNotWriteableException**

*This exception must be thrown when a CMS client attempts to write to a read-only message.*

- class **MessageProducer**

*A client uses a **MessageProducer** (p. 2332) object to send messages to a **Destination** (p. 1480).*

- class **ObjectMessage**

*Place holder for interaction with JMS systems that support Java, the C++ client is not responsible for deserializing the contained Object.*

- class **Queue**

*An interface encapsulating a provider-specific queue name.*

- class **QueueBrowser**

*This class implements in interface for browsing the messages in a **Queue** (p. 2674) without removing them.*

- class **Session**  
*A **Session** (p. 2839) object is a single-threaded context for producing and consuming messages.*
- class **Startable**  
*Interface for a class that implements the start method.*
- class **Stoppable**  
*Interface for a class that implements the stop method.*
- class **StreamMessage**  
*Interface for a **StreamMessage** (p. 3081).*
- class **TemporaryQueue**  
*Defines a Temporary **Queue** (p. 2674) based **Destination** (p. 1480).*
- class **TemporaryTopic**  
*Defines a Temporary **Topic** (p. 3215) based **Destination** (p. 1480).*
- class **TextMessage**  
*Interface for a text message.*
- class **Topic**  
*An interface encapsulating a provider-specific topic name.*
- class **UnsupportedOperationException**  
*This exception must be thrown when a CMS client attempts use a CMS method that is not implemented or not supported by the CMS Provider in use.*

### 5.28.1 Detailed Description

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## 5.29 decaf Namespace Reference

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### Namespaces

- namespace **internal**
- namespace **io**
- namespace **lang**
- namespace **net**
- namespace **nio**
- namespace **security**
- namespace **security\_provider**
- namespace **util**

#### 5.29.1 Detailed Description

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## 5.30 decaf::internal Namespace Reference

### Namespaces

- namespace **io**
- namespace **net**
- namespace **nio**
- namespace **util**

### Data Structures

- class **AprPool**  
*Wraps an APR pool object so that classes in decaf can create a static member for use in static methods where apr function calls that need a pool are made.*
- class **DecafRuntime**  
*Handles APR initialization and termination.*

## 5.31 decaf::internal::io Namespace Reference

### Data Structures

- class **StandardErrorOutputStream**

*Wrapper Around the Standard error Output facility on the current platform.*

- class **StandardInputStream**
- class **StandardOutputStream**

## 5.32 decaf::internal::net Namespace Reference

### Data Structures

- class **URIEncoderDecoder**
- class **URIHelper**

*Helper class used by the URI classes in encoding and decoding of URI's.*

- class **URIType**

*Basic type object that holds data that composes a given URI.*



## 5.33 decaf::internal::nio Namespace Reference

### Data Structures

- class **BufferFactory**

*Factory class used by static methods in the **decaf::nio** (p. 128) package to create the various default version of the NIO interfaces.*

- class **ByteBuffer**

*This class defines six categories of operations upon byte buffers:.*

- class **ByteArrayPerspective**

*This class extends **ByteArray** to create a reference counted byte array that can be held and used by several different **ByteBuffers** and allow them to know on destruction whose job it is to delete the perspective.*

- class **CharArrayBuffer**
- class **DoubleArrayBuffer**
- class **FloatArrayBuffer**
- class **IntArrayBuffer**
- class **LongArrayBuffer**
- class **ShortArrayBuffer**

## 5.34 decaf::internal::util Namespace Reference

### Namespaces

- namespace **concurrent**

### Data Structures

- class **ByteArrayAdapter**

*This class adapts primitive type arrays to a base byte array so that the classes can inter-operate on the same base byte array without copying data.*

- class **HexStringParser**
- class **TimerTaskHeap**

*A Binary Heap implemented specifically for the Timer class in Decaf Util.*

## 5.35 decaf::internal::util::concurrent Namespace Reference

### Data Structures

- class **ConditionImpl**
- class **MutexImpl**
- class **SynchronizableImpl**

*A convenience class used by some Decaf classes to implement the Synchronizable interface when there is no issues related to multiple inheritance.*

- class **Transferer**

*Shared internal API for dual stacks and queues.*

- class **TransferQueue**

*This extends Scherer-Scott dual queue algorithm, differing, among other ways, by using modes within nodes rather than marked pointers.*

- class **TransferStack**

## 5.36 decaf::io Namespace Reference

### Data Structures

- class **BlockingByteArrayInputStream**  
*This is a blocking version of a byte buffer stream.*
- class **BufferedInputStream**  
*A wrapper around another input stream that performs a buffered read, where it reads more data than it needs in order to reduce the number of io operations on the input stream.*
- class **BufferedOutputStream**  
*Wrapper around another output stream that buffers output before writing to the target output stream.*
- class **ByteArrayInputStream**  
*Simple implementation of **InputStream** (p. 1740) that wraps around an STL Vector `std::vector<unsigned char>`.*
- class **ByteArrayOutputStream**
- class **Closeable**  
*Interface for a class that implements the close method.*
- class **DataInputStream**  
*A data input stream lets an application read primitive Java data types from an underlying input stream in a machine-independent way.*
- class **DataOutputStream**  
*A data output stream lets an application write primitive Java data types to an output stream in a portable way.*
- class **EOFException**
- class **FilterInputStream**  
*A **FilterInputStream** (p. 1631) contains some other input stream, which it uses as its basic source of data, possibly transforming the data along the way or providing additional functionality.*
- class **FilterOutputStream**  
*This class is the superclass of all classes that filter output streams.*
- class **InputStream**  
*Base interface for an input stream.*
- class **InterruptedIOException**
- class **IOException**
- class **OutputStream**  
*Base interface for an output stream.*
- class **Reader**
- class **UnsupportedEncodingException**  
*Thrown when the the Character Encoding is not supported.*

- class **UTFDataFormatException**

*Thrown from classes that attempt to read or write a UTF-8 encoded string and an encoding error is encountered.*

- class **Writer**

## 5.37 decaf::lang Namespace Reference

### Namespaces

- namespace **exceptions**

### Data Structures

- class **Appendable**
- class **Boolean**
- class **Byte**
- class **Character**
- class **CharSequence**

*A **CharSequence** (p. 1014) is a readable sequence of char values.*

- class **Comparable**

*This interface imposes a total ordering on the objects of each class that implements it.*

- class **Double**
- class **Exception**
- class **Float**
- class **Integer**
- class **Iterable**

*Implementing this interface allows an object to be cast to an **Iterable** (p. 1830) type for generic collections API calls.*

- class **Long**
- class **Math**

*The class **Math** (p. 2126) contains methods for performing basic numeric operations such as the elementary exponential, logarithm, square root, and trigonometric functions.*

- class **Number**

*The abstract class **Number** (p. 2432) is the superclass of classes **Byte** (p. 840), **Double** (p. 1537), **Float** (p. 1647), **Integer** (p. 1762), **Long** (p. 2057), and **Short** (p. 2906).*

- class **AtomicRefCounter**
- struct **STATIC\_CAST\_TOKEN**
- struct **DYNAMIC\_CAST\_TOKEN**
- class **Pointer**

*Decaf's implementation of a Smart **Pointer** (p. 2497) that is a template on a **Type** and is **Thread Safe** if the default Reference Counter is used.*

- class **PointerComparator**

*This implementation of **Comparator** is designed to allows objects in a **Collection** to be sorted or tested for equality based on the value of the **Object** being **Pointed** to and not the value of the contained pointer in the **Pointer** (p. 2497) instance.*

- class **Runnable**

*Interface for a runnable object - defines a task that can be run by a thread.*

- class **Runtime**
- class **Short**
- class **System**
- class **ThreadGroup**
- class **Throwable**

*This class represents an error that has occurred.*

## Functions

- template<typename T , typename R , typename U >  
bool **operator**== (const **Pointer**< T, R > &left, const U \*right)
- template<typename T , typename R , typename U >  
bool **operator**== (const U \*left, const **Pointer**< T, R > &right)
- template<typename T , typename R , typename U >  
bool **operator**!= (const **Pointer**< T, R > &left, const U \*right)
- template<typename T , typename R , typename U >  
bool **operator**!= (const U \*left, const **Pointer**< T, R > &right)

### 5.37.1 Function Documentation

**5.37.1.1**    template<typename T , typename R , typename U > bool  
               decaf::lang::operator!= (const U \* *left*, const **Pointer**< T, R > & *right*)  
               [inline]

References decaf::lang::Pointer< T, REFCOUNTER >::get().

**5.37.1.2**    template<typename T , typename R , typename U > bool  
               decaf::lang::operator!= (const **Pointer**< T, R > & *left*, const U \* *right*)  
               [inline]

References decaf::lang::Pointer< T, REFCOUNTER >::get().

**5.37.1.3**    template<typename T , typename R , typename U > bool  
               decaf::lang::operator== (const U \* *left*, const **Pointer**< T, R > & *right*)  
               [inline]

References decaf::lang::Pointer< T, REFCOUNTER >::get().

**5.37.1.4**    template<typename T , typename R , typename U > bool  
               decaf::lang::operator== (const **Pointer**< T, R > & *left*, const U \* *right*)  
               [inline]

References decaf::lang::Pointer< T, REFCOUNTER >::get().

## 5.38 decaf::lang::exceptions Namespace Reference

### Data Structures

- class **ClassCastException**
- class **IllegalArgumentException**
- class **IllegalMonitorStateException**
- class **IllegalStateException**
- class **IllegalThreadStateException**
- class **IndexOutOfBoundsException**
- class **InterruptedException**
- class **InvalidStateException**
- class **NoSuchElementException**
- class **NullPointerException**
- class **NumberFormatException**
- class **RuntimeException**
- class **UnsupportedOperationException**



## 5.39 decaf::net Namespace Reference

### Data Structures

- class **BindException**
- class **BufferedSocket**

*Buffered **Socket** (p. 2964) class that wraps a **Socket** (p. 2964) derived object and provides Buffered input and Output Streams to improve the efficiency of the reads and writes.*

- class **ConnectException**
- class **HttpRetryException**
- class **MalformedURLErrorException**
- class **NoRouteToHostException**
- class **PortUnreachableException**
- class **ProtocolException**
- class **ServerSocket**

*A server socket class (for testing purposes).*

- class **Socket**
- class **SocketError**

*Static utility class to simplify handling of error codes for socket operations.*

- class **SocketException**

*Exception for errors when manipulating sockets.*

- class **SocketFactory**

***Socket** (p. 2964) Factory implementation for use in Creating Sockets.*

- class **SocketInputStream**

*Input stream for performing reads on a socket.*

- class **SocketOutputStream**

*Output stream for performing write operations on a socket.*

- class **SocketTimeoutException**
- class **TcpSocket**

*Platform-independent implementation of the socket interface.*

- class **UnknownHostException**
- class **UnknownServiceException**
- class **URI**

*This class represents an instance of a **URI** (p. 3308) as defined by RFC 2396.*

- class **URISyntaxException**
- class **URL**

*Class **URL** (p. 3347) represents a Uniform Resource Locator, a pointer to a "resource" on the World Wide Web.*

- class **URLDecoder**
- class **URLEncoder**

## 5.40 decaf::nio Namespace Reference

### Data Structures

- class **Buffer**

*A container for data of a specific primitive type.*

- class **BufferOverflowException**
- class **BufferUnderflowException**
- class **ByteBuffer**

*This class defines six categories of operations upon byte buffers:.*

- class **CharBuffer**

*This class defines four categories of operations upon character buffers:.*

- class **DoubleBuffer**

*This class defines four categories of operations upon double buffers:.*

- class **FloatBuffer**

*This class defines four categories of operations upon float buffers:.*

- class **IntBuffer**

*This class defines four categories of operations upon int buffers:.*

- class **InvalidMarkException**

- class **LongBuffer**

*This class defines four categories of operations upon long long buffers:.*

- class **ReadOnlyBufferException**

- class **ShortBuffer**

*This class defines four categories of operations upon short buffers:.*

## 5.41 decaf::security Namespace Reference

### Namespaces

- namespace **auth**
- namespace **cert**

### Data Structures

- class **GeneralSecurityException**
- class **InvalidKeyException**
- class **Key**

*The **Key** (p. 1953) interface is the top-level interface for all keys.*

- class **KeyException**
- class **NoSuchAlgorithmException**
- class **NoSuchProviderException**
- class **Principal**

*Base interface for a principal, which can represent an individual or organization.*

- class **PublicKey**

*A public key.*

- class **SignatureException**

## 5.42 decaf::security::auth Namespace Reference

### Namespaces

- namespace **x500**

## 5.43 decaf::security::auth::x500 Namespace Reference

### Data Structures

- class **X500Principal**

## 5.44 decaf::security::cert Namespace Reference

### Data Structures

- class **Certificate**  
*Base interface for all identity certificates.*
- class **CertificateEncodingException**
- class **CertificateException**
- class **CertificateExpiredException**
- class **CertificateNotYetValidException**
- class **CertificateParsingException**
- class **X509Certificate**  
*Base interface for all identity certificates.*

## 5.45 decaf::security\_provider Namespace Reference

### Namespaces

- namespace **unix**

### Data Structures

- class **SecurityProvider**
- class **SecurityProviderMap**

*Lookup Map for Connector Factories.*

- class **SecurityProviderRegistrar**

*Registers the passed in provider into the provider map, this class can manage the lifetime of the registered provider (default behaviour).*

## 5.46 decaf::security\_provider::unix Namespace Reference

### Namespaces

- namespace `openssl`



## 5.47 decaf::security\_provider::unix::openssl Namespace Reference

### Data Structures

- class **OpenSSLX500Principal**  
*The `OpenSSLX500Principal` (p. 2439) wraps around an `OpenSSL X509_NAME` structure.*
- class **OpenSSLX509Certificate**

## 5.48 decaf::util Namespace Reference

### Namespaces

- namespace **comparators**
- namespace **concurrent**
- namespace **logging**

### Data Structures

- class **AbstractCollection**

*This class provides a skeletal implementation of the **Collection** (p. 1054) interface, to minimize the effort required to implement this interface.*

- class **AbstractList**

*This class provides a skeletal implementation of the **List** (p. 1984) interface to minimize the effort required to implement this interface backed by a "random access" data store (such as an array).*

- class **AbstractMap**

*This class provides a skeletal implementation of the **Map** (p. 2094) interface, to minimize the effort required to implement this interface.*

- class **AbstractQueue**

*This class provides skeletal implementations of some **Queue** (p. 2671) operations.*

- class **AbstractSequentialList**

*This class provides a skeletal implementation of the **List** (p. 1984) interface to minimize the effort required to implement this interface backed by a "sequential access" data store (such as a linked list).*

- class **AbstractSet**

*This class provides a skeletal implementation of the **Set** (p. 2905) interface to minimize the effort required to implement this interface.*

- class **Collection**

*The root interface in the collection hierarchy.*

- class **Comparator**

*A comparison function, which imposes a total ordering on some collection of objects.*

- class **Date**

*Wrapper class around a time value in milliseconds.*

- class **Iterator**

*Defines an object that can be used to iterate over the elements of a collection.*

- class **List**

*An ordered collection (also known as a sequence).*

- class **ListIterator**

*An iterator for lists that allows the programmer to traverse the list in either direction, modify the list during iteration, and obtain the iterator's current position in the list.*

- class **Map**

***Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.*

- class **PriorityQueue**

*An unbounded priority queue based on a binary heap algorithm.*

- class **Properties**

*Java-like properties class for mapping string names to string values.*

- class **Queue**

*A kind of collection provides advanced operations than other basic collections, such as insertion, extraction, and inspection.*

- class **Random**

***Random** (p. 2677) Value Generator which is used to generate a stream of pseudorandom numbers.*

- class **Set**

*A collection that contains no duplicate elements.*

- class **StlList**

***List** (p. 1984) class that wraps the STL list object to provide a simpler interface and additional methods not provided by the STL type.*

- class **StlMap**

***Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.*

- class **StlQueue**

*The **Queue** (p. 2671) class accepts messages with an `psuh(m)` command where `m` is the message to be queued.*

- class **StlSet**

***Set** (p. 2905) template that wraps around a `std::set` to provide a more user-friendly interface and to provide common functions that do not exist in `std::set`.*

- class **StringTokenizer**

- class **Timer**

*A facility for threads to schedule tasks for future execution in a background thread.*

- class **TimerTask**

*A Base class for a task object that can be scheduled for one-time or repeated execution by a **Timer** (p. 3188).*

- class **UUID**

*A class that represents an immutable universally unique identifier (**UUID** (p. 3356)).*

## 5.49 decaf::util::comparators Namespace Reference

### Data Structures

- class **Less**

*Simple **Less** (p. 1981) **Comparator** (p. 1086) that compares to elements to determine if the first is less than the second.*

## 5.50 decaf::util::concurrent Namespace Reference

### Namespaces

- namespace **atomic**
- namespace **locks**

### Data Structures

- class **ConditionHandle**
- class **MutexHandle**
- class **BrokenBarrierException**
- class **Callable**

*A task that returns a result and may throw an exception.*

- class **CancellationException**
- class **ConcurrentMap**

*Interface for a **Map** (p. 2094) type that provides additional atomic putIfAbsent, remove, and replace methods alongside the already available **Map** (p. 2094) interface.*

- class **ConcurrentStlMap**

***Map** (p. 2094) template that wraps around a std::map to provide a more user-friendly interface and to provide common functions that do not exist in std::map.*

- class **CountDownLatch**
- class **Delayed**

*A mix-in style interface for marking objects that should be acted upon after a given delay.*

- class **ExecutionException**
- class **Executor**

*An object that executes submitted **decaf.lang Runnable** (p. 2816) tasks.*

- class **ExecutorService**

*An **Executor** (p. 1608) that provides methods to manage termination and methods that can produce a **Future** (p. 1701) for tracking progress of one or more asynchronous tasks.*

- class **Future**

*A **Future** (p. 1701) represents the result of an asynchronous computation.*

- class **Lock**

*A wrapper class around a given synchronization mechanism that provides automatic release upon destruction.*

- class **Mutex**

***Mutex** (p. 2385) object that offers recursive support on all platforms as well as providing the ability to use the standard wait / notify pattern used in languages like Java.*

- class **PooledThread**
- class **PooledThreadListener**

*Abstract Listener Interface for users of **ThreadPool** (p. 3175).*

- class **RejectedExecutionException**
- class **RejectedExecutionHandler**

*A handler for tasks that cannot be executed by a **ThreadPoolExecutor** (p. ??).*

- class **Semaphore**

*A counting semaphore.*

- class **Synchronizable**

*The interface for all synchronizable objects (that is, objects that can be locked and unlocked).*

- class **SynchronousQueue**

*A **BlockingQueue** blocking queue} in which each insert operation must wait for a corresponding remove operation by another thread, and vice versa.*

- class **TaskListener**

- class **ThreadFactory**

*public interface **ThreadFactory** (p. 3172)*

- class **ThreadPool**

*Defines a Thread Pool object that implements the functionality of pooling threads to perform user tasks.*

- class **TimeoutException**

- class **TimeUnit**

*A **TimeUnit** (p. 3205) represents time durations at a given unit of granularity and provides utility methods to convert across units, and to perform timing and delay operations in these units.*

## 5.51 decaf::util::concurrent::atomic Namespace Reference

### Data Structures

- class **AtomicBoolean**  
*A boolean value that may be updated atomically.*
- class **AtomicInteger**  
*An int value that may be updated atomically.*
- class **AtomicReference**  
*An Pointer reference that may be updated atomically.*

## 5.52 decaf::util::concurrent::locks Namespace Reference

### Data Structures

- class **Condition**

***Condition** (p. 1118) factors out the **Mutex** (p. 2385) monitor methods (wait, notify and notifyAll) into distinct objects to give the effect of having multiple wait-sets per object, by combining them with the use of arbitrary **Lock** (p. 2017) implementations.*

- class **Lock**

***Lock** (p. 2017) implementations provide more extensive locking operations than can be obtained using synchronized statements.*

- class **LockSupport**

*Basic thread blocking primitives for creating locks and other synchronization classes.*

- class **ReadWriteLock**

*A **ReadWriteLock** (p. 2688) maintains a pair of associated locks, one for read-only operations and one for writing.*

- class **ReentrantLock**

*A reentrant mutual exclusion **Lock** (p. 2017) with extended capabilities.*



## 5.53 decaf::util::logging Namespace Reference

### Data Structures

- class **Filter**

A **Filter** (p. 1630) can be used to provide fine grain control over what is logged, beyond the control provided by log levels.

- class **Formatter**

A **Formatter** (p. 1699) provides support for formatting *LogRecords*.

- class **Handler**

A **Handler** (p. 1709) object takes log messages from a **Logger** (p. 2028) and exports them.

- class **Logger**

- class **LoggerHierarchy**

- class **LogManager**

There is a single global **LogManager** (p. 2045) object that is used to maintain a set of shared state about *Loggers* and log services.

- class **LogRecord**

- class **LogWriter**

- class **MarkBlockLogger**

Defines a class that can be used to mark the entry and exit from scoped blocks.

- class **PropertiesChangeListener**

Defines the interface that classes can use to listen for change events on **Properties** (p. 2657).

- class **SimpleFormatter**

Print a brief summary of the **LogRecord** (p. 2050) in a human readable format.

- class **SimpleLogger**

- class **StreamHandler**

### Enumerations

- enum **Level** {

Off, Null, Markblock, Debug,  
Info, Warn, Error, Fatal,  
Throwing }

Defines an enumeration for logging levels.

#### 5.53.1 Enumeration Type Documentation

##### 5.53.1.1 enum decaf::util::logging::Level

Defines an enumeration for logging levels.

Enumerator:

*Off*

*Null*

*Markblock*

*Debug*

*Info*

*Warn*

*Error*

*Fatal*

*Throwing*

## 5.54 std Namespace Reference

### Data Structures

- struct `less< decaf::lang::Pointer< T > >`

*An override of the less function object so that the Pointer objects can be stored in STL Maps, etc.*



## Chapter 6

# Data Structure Documentation

### 6.1 decaf::util::AbstractCollection< E > Class Template Reference

This class provides a skeletal implementation of the **Collection** (p.1054) interface, to minimize the effort required to implement this interface.

#include <src/main/decaf/util/AbstractCollection.h> Inheritance diagram for decaf::util::AbstractCollection< E >:

#### Public Member Functions

- virtual ~**AbstractCollection** ()
- **AbstractCollection**< E > & **operator=** (const **AbstractCollection**< E > &collection)  
*Assignment Operator, copy element from the source collection to this collection after clearing any element stored in this collection.*
- virtual bool **add** (const E &value DECAF\_UNUSED)  
throw ( lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )  
*Ensures that this collection contains the specified element (optional operation).*
- virtual bool **addAll** (const **Collection**< E > &collection)  
throw ( lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )  
*Adds all of the elements in the specified collection to this collection (optional operation).*
- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )  
*Removes all of the elements from this collection (optional operation).*
- virtual void **copy** (const **Collection**< E > &collection)  
*Renders this **Collection** (p.1054) as a Copy of the given **Collection** (p.1054).*

- virtual bool **contains** (const E &value) const throw ( lang::Exception )  
*Returns true if this collection contains the specified element.*
- virtual bool **containsAll** (const **Collection**< E > &collection) const throw ( lang::Exception )  
*Returns true if this collection contains all of the elements in the specified collection.*
- virtual bool **equals** (const **Collection**< E > &collection) const  
*Answers true if this **Collection** (p. 1054) and the one given are the same size and if each element contained in the **Collection** (p. 1054) given is equal to an element contained in this collection.*
- virtual bool **isEmpty** () const  
*Returns true if this collection contains no elements.*
- virtual bool **remove** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Removes a single instance of the specified element from this collection, if it is present (optional operation).*
- virtual bool **removeAll** (const **Collection**< E > &collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Removes all of this collection's elements that are also contained in the specified collection (optional operation).*
- virtual bool **retainAll** (const **Collection**< E > &collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Retains only the elements in this collection that are contained in the specified collection (optional operation).*
- virtual std::vector< E > **toArray** () const  
*Answers an STL vector containing copies of all elements contained in this **Collection** (p. 1054).*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

## Protected Attributes

- util::concurrent::Mutex mutex

### 6.1.1 Detailed Description

**template<typename E> class decaf::util::AbstractCollection< E >**

This class provides a skeletal implementation of the **Collection** (p.1054) interface, to minimize the effort required to implement this interface. To implement an unmodifiable collection, the programmer needs only to extend this class and provide implementations for the iterator and size methods. (The iterator returned by the iterator method must implement hasNext and next.)

To implement a modifiable collection, the programmer must additionally override this class's add method (which otherwise throws an UnsupportedOperationException), and the iterator returned by the iterator method must additionally implement its remove method.

The programmer should generally provide a void (no argument) and **Collection** (p.1054) constructor, as per the recommendation in the **Collection** (p.1054) interface specification.

The documentation for each non-abstract method in this class describes its implementation in detail. Each of these methods may be overridden if the collection being implemented admits a more efficient implementation.

**Since:**

1.0

## 6.1.2 Constructor & Destructor Documentation

**6.1.2.1** `template<typename E> virtual decaf::util::AbstractCollection< E  
>::~~AbstractCollection () [inline, virtual]`

## 6.1.3 Member Function Documentation

**6.1.3.1** `template<typename E> virtual bool decaf::util::AbstractCollection<  
E >::add (const E &value DECAF_UNUSED) throw  
( lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException,  
lang::exceptions::IllegalStateException ) [inline,  
virtual]`

Ensures that this collection contains the specified element (optional operation). Returns true if this collection changed as a result of the call. (Returns false if this collection does not permit duplicates and already contains the specified element.)

Collections that support this operation may place limitations on what elements may be added to this collection. **Collection** (p. 1054) classes should clearly specify in their documentation any restrictions on what elements may be added.

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

This implementation always throws an `UnsupportedOperationException`.

### Parameters:

*value* - The element that must be ensured to be in this collection.

### Returns:

true if the collection was changed as a result of this call.

### Exceptions:

***UnsupportedOperationException*** if the add operation is not supported by this collection

***IllegalArgumentException*** if some property of the element prevents it from being added to this collection

***IllegalStateException*** if the element cannot be added at this time due to insertion restrictions

Referenced by `decaf::util::AbstractCollection< Pointer< BackupTransport > >::addAll()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::copy()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::operator=()`.



```

6.1.3.2  template<typename E> virtual bool decaf::util::AbstractCollection<
        E >::addAll (const Collection< E > & collection) throw
        ( lang::exceptions::UnsupportedOperationException,
        lang::exceptions::IllegalArgumentException,
        lang::exceptions::IllegalStateException ) [inline,
        virtual]

```

Adds all of the elements in the specified collection to this collection (optional operation). The behavior of this operation is undefined if the specified collection is modified while the operation is in progress. (This implies that the behavior of this call is undefined if the specified collection is this collection, and this collection is nonempty.)

This implementation iterates over the specified collection, and adds each object returned by the iterator to this collection, in turn.

Note that this implementation will throw an `UnsupportedOperationException` unless `add` is overridden (assuming the specified collection is non-empty).

**Parameters:**

*collection* - The **Collection** (p. 1054) whose elements are to be added to this **Collection** (p. 1054).

**Returns:**

true if the collection was changed as a result of this call.

**Exceptions:**

*UnsupportedOperationException* if the `addAll` operation is not supported by this collection

*IllegalArgumentException* if some property of the element prevents it from being added to this collection

*IllegalStateException* if the element cannot be added at this time due to insertion restrictions

Implements **decaf::util::Collection< E >** (p. 1057).

Reimplemented in **decaf::util::AbstractQueue< E >** (p. 163).

```

6.1.3.3  template<typename E> virtual void decaf::util::AbstractCollection< E
        >::clear () throw ( lang::exceptions::UnsupportedOperationException )
        [inline, virtual]

```

Removes all of the elements from this collection (optional operation). The collection will be empty after this method returns.

This implementation iterates over this collection, removing each element using the **Iterator.remove** (p. 1833) operation. Most implementations will probably choose to override this method for efficiency.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the `remove` method and this collection is non-empty.

**Exceptions:**

*UnsupportedOperationException* if the `clear` operation is not supported by this collection

Implements **decaf::util::Collection**< **E** > (p. 1057).

Reimplemented in **decaf::util::AbstractQueue**< **E** > (p. 164), **decaf::util::PriorityQueue**< **E** > (p. 2574), **decaf::util::StlList**< **E** > (p. 3024), **decaf::util::StlSet**< **E** > (p. 3054), **decaf::util::StlList**< **CompositeTask** \* > (p. 3024), **decaf::util::StlList**< **URI** > (p. 3024), **decaf::util::StlList**< **Pointer**< **DestinationInfo** > > (p. 3024), **decaf::util::StlList**< **PrimitiveValueNode** > (p. 3024), **decaf::util::StlList**< **Pointer**< **Command** > > (p. 3024), **decaf::util::StlList**< **Pointer**< **BackupTransport** > > (p. 3024), **decaf::util::StlSet**< **transport::TransportListener** \* > (p. 3054), **decaf::util::StlSet**< **Pointer**< **Synchronization** > > (p. 3054), and **decaf::util::StlSet**< **ActiveMQSession** \* > (p. 3054).

Referenced by **decaf::util::AbstractCollection**< **Pointer**< **BackupTransport** > >::copy(), and **decaf::util::AbstractCollection**< **Pointer**< **BackupTransport** > >::operator=().

**6.1.3.4** `template<typename E> virtual bool decaf::util::AbstractCollection< E >::contains (const E & value) const throw ( lang::Exception ) [inline, virtual]`

Returns true if this collection contains the specified element. This implementation iterates over the elements in the collection, checking each element in turn for equality with the specified element.

**Parameters:**

*value* - the value whose presence is to be queried for in this **Collection** (p. 1054).

**Returns:**

true if the value is contained in this collection

**Exceptions:**

*Exception* if an error occurs,

Implements **decaf::util::Collection**< **E** > (p. 1058).

Reimplemented in **decaf::util::StlList**< **E** > (p. 3024), **decaf::util::StlSet**< **E** > (p. 3055), **decaf::util::StlList**< **CompositeTask** \* > (p. 3024), **decaf::util::StlList**< **URI** > (p. 3024), **decaf::util::StlList**< **Pointer**< **DestinationInfo** > > (p. 3024), **decaf::util::StlList**< **PrimitiveValueNode** > (p. 3024), **decaf::util::StlList**< **Pointer**< **Command** > > (p. 3024), **decaf::util::StlList**< **Pointer**< **BackupTransport** > > (p. 3024), **decaf::util::StlSet**< **transport::TransportListener** \* > (p. 3055), **decaf::util::StlSet**< **Pointer**< **Synchronization** > > (p. 3055), and **decaf::util::StlSet**< **ActiveMQSession** \* > (p. 3055).

Referenced by **decaf::util::AbstractCollection**< **Pointer**< **BackupTransport** > >::containsAll().

**6.1.3.5** `template<typename E> virtual bool decaf::util::AbstractCollection< E >::containsAll (const Collection< E > & collection) const throw ( lang::Exception ) [inline, virtual]`

Returns true if this collection contains all of the elements in the specified collection. This implementation iterates over the specified collection, checking each element returned by the iterator in turn to see if it's contained in this collection. If all elements are so contained true is returned, otherwise false.

**Parameters:**

*collection* collection to be checked for containment in this collection

**Returns:**

true if this collection contains all of the elements in the specified collection.

**Exceptions:**

*Exception* if an error occurs,

Implements **decaf::util::Collection< E >** (p. 1058).

Referenced by **decaf::util::AbstractCollection< Pointer< BackupTransport > >::equals()**.

### 6.1.3.6 **template<typename E> virtual void decaf::util::AbstractCollection< E >::copy (const Collection< E > & collection) [inline, virtual]**

Renders this **Collection** (p. 1054) as a Copy of the given **Collection** (p. 1054). This implementation iterates over the contents of the given collection adding each to this collection after first calling this Collection's clear method.

**Parameters:**

*collection* - the collection to mirror.

### 6.1.3.7 **template<typename E> virtual bool decaf::util::AbstractCollection< E >::equals (const Collection< E > & collection) const [inline, virtual]**

Answers true if this **Collection** (p. 1054) and the one given are the same size and if each element contained in the **Collection** (p. 1054) given is equal to an element contained in this collection.

**Parameters:**

*collection* - The **Collection** (p. 1054) to be compared to this one.

**Returns:**

true if this **Collection** (p. 1054) is equal to the one given.

Implements **decaf::util::Collection< E >** (p. 1059).

### 6.1.3.8 **template<typename E> virtual bool decaf::util::AbstractCollection< E >::isEmpty () const [inline, virtual]**

Returns true if this collection contains no elements. This implementation returns **size()** (p. 1062) == 0.

**Returns:**

true if the size method return 0.

Implements **decaf::util::Collection< E >** (p. 1059).

Reimplemented in **decaf::util::StlList< E >** (p. 3025), **decaf::util::StlSet< E >** (p. 3055), **decaf::util::StlList< CompositeTask \* >** (p. 3025), **decaf::util::StlList< URI >** (p. 3025), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3025), **decaf::util::StlList< PrimitiveValueNode >** (p. 3025), **decaf::util::StlList< Pointer< Command > >** (p. 3025),

`decaf::util::StlList< Pointer< BackupTransport > >` (p. 3025), `decaf::util::StlSet< transport::TransportListener * >` (p. 3055), `decaf::util::StlSet< Pointer< Synchronization > >` (p. 3055), and `decaf::util::StlSet< ActiveMQSession * >` (p. 3055).

Referenced by `decaf::util::AbstractQueue< E >::clear()`.

**6.1.3.9** `template<typename E> virtual void decaf::util::AbstractCollection< E >::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Locks the object.

#### Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.1.3.10** `template<typename E> virtual void decaf::util::AbstractCollection< E >::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

**6.1.3.11** `template<typename E> virtual void decaf::util::AbstractCollection< E >::notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3125).

**6.1.3.12** `template<typename E> AbstractCollection<E>& decaf::util::AbstractCollection< E >::operator= (const AbstractCollection< E > & collection) [inline]`

Assignment Operator, copy element from the source collection to this collection after clearing any element stored in this collection.

**Parameters:**

*collection* - the collection to copy

**Returns:**

a reference to this collection

```
6.1.3.13  template<typename E> virtual bool decaf::util::AbstractCollection<
           E >::remove (const E & value) throw (
           lang::exceptions::UnsupportedOperationException,
           lang::exceptions::IllegalArgumentException ) [inline, virtual]
```

Removes a single instance of the specified element from this collection, if it is present (optional operation). More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an UnsupportedOperationException if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

**Parameters:**

*value* - element to be removed from this collection, if present

**Returns:**

true if an element was removed as a result of this call

**Exceptions:**

**UnsupportedOperationException** if the remove operation is not supported by this collection.

**IllegalArgumentException** If the value is not a valid entry for this **Collection** (p. 1054).

Implements **decaf::util::Collection< E >** (p. 1060).

Reimplemented in **decaf::util::PriorityQueue< E >** (p. 2577), **decaf::util::StlList< E >** (p. 3027), **decaf::util::StlSet< E >** (p. 3056), **decaf::util::StlList< CompositeTask \* >** (p. 3027), **decaf::util::StlList< URI >** (p. 3027), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3027), **decaf::util::StlList< PrimitiveValueNode >** (p. 3027), **decaf::util::StlList< Pointer< Command > >** (p. 3027), **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3027), **decaf::util::StlSet< transport::TransportListener \* >** (p. 3056), **decaf::util::StlSet< Pointer< Synchronization > >** (p. 3056), and **decaf::util::StlSet< ActiveMQSession \* >** (p. 3056).

```
6.1.3.14  template<typename E> virtual bool decaf::util::AbstractCollection<
           E >::removeAll (const Collection< E > & collection)
           throw ( lang::exceptions::UnsupportedOperationException,
           lang::exceptions::IllegalArgumentException ) [inline, virtual]
```

Removes all of this collection's elements that are also contained in the specified collection (optional operation). After this call returns, this collection will contain no elements in common with the

specified collection.

This implementation iterates over this collection, checking each element returned by the iterator in turn to see if it's contained in the specified collection. If it's so contained, it's removed from this collection with the iterator's remove method.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by the iterator method does not implement the remove method and this collection contains one or more elements in common with the specified collection.

**Parameters:**

*collection* - collection containing elements to be removed from this collection

**Returns:**

true if this collection changed as a result of the call

**Exceptions:**

*UnsupportedOperationException* if the remove operation is not supported by this collection

*IllegalArgumentException*.

Implements `decaf::util::Collection< E >` (p. 1060).

Reimplemented in `decaf::util::AbstractSet< E >` (p. 167), `decaf::util::AbstractSet< transport::TransportListener * >` (p. 167), `decaf::util::AbstractSet< Pointer< Synchronization > >` (p. 167), and `decaf::util::AbstractSet< ActiveMQSession * >` (p. 167).

```
6.1.3.15  template<typename E> virtual bool decaf::util::AbstractCollection<
           E >::retainAll (const Collection< E > & collection)
           throw ( lang::exceptions::UnsupportedOperationException,
                   lang::exceptions::IllegalArgumentException ) [inline, virtual]
```

Retains only the elements in this collection that are contained in the specified collection (optional operation). In other words, removes from this collection all of its elements that are not contained in the specified collection.

This implementation iterates over this collection, checking each element returned by the iterator in turn to see if it's contained in the specified collection. If it's not so contained, it's removed from this collection with the iterator's remove method.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by the iterator method does not implement the remove method and this collection contains one or more elements not present in the specified collection.

**Parameters:**

*collection* - collection containing elements to be retained in this collection

**Returns:**

true if this collection changed as a result of the call

**Exceptions:**

*UnsupportedOperationException* if the remove operation is not supported by this collection

*IllegalArgumentException.*

Implements **decaf::util::Collection< E >** (p. 1061).

**6.1.3.16** `template<typename E> virtual std::vector<E>  
decaf::util::AbstractCollection< E >::toArray () const [inline, virtual]`

Answers an STL vector containing copies of all elements contained in this **Collection** (p. 1054). All the elements in the array will not be referenced by the collection. The elements in the returned array will be sorted to the same order as those returned by the iterator of this collection itself if the collection guarantees the order.

**Returns:**

an vector of copies of all the elements from this **Collection** (p. 1054)

Implements **decaf::util::Collection< E >** (p. 1062).

**6.1.3.17** `template<typename E> virtual bool decaf::util::AbstractCollection<  
E >::tryLock () throw ( decaf::lang::exceptions::RuntimeException )  
[inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.1.3.18** `template<typename E> virtual void decaf::util::AbstractCollection< E  
>::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline,  
virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.1.3.19** `template<typename E> virtual void decaf::util::AbstractCollection<E >::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3128).

**6.1.3.20** `template<typename E> virtual void decaf::util::AbstractCollection<E >::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3130).



**6.1.3.21** `template<typename E> virtual void decaf::util::AbstractCollection< E >::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3131).

### 6.1.4 Field Documentation

**6.1.4.1** `template<typename E> util::concurrent::Mutex decaf::util::AbstractCollection< E >::mutex [mutable, protected]`

Referenced by `decaf::util::AbstractCollection< Pointer< BackupTransport > >::lock()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::notify()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::notifyAll()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::tryLock()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::unlock()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::wait()`.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/AbstractCollection.h`

## 6.2 decaf::util::AbstractList< E > Class Template Reference

This class provides a skeletal implementation of the **List** (p.1984) interface to minimize the effort required to implement this interface backed by a "random access" data store (such as an array).

#include <src/main/decaf/util/AbstractList.h> Inheritance diagram for decaf::util::AbstractList< E >:

### Public Member Functions

- virtual ~**AbstractList** ()

#### 6.2.1 Detailed Description

**template<typename E> class decaf::util::AbstractList< E >**

This class provides a skeletal implementation of the **List** (p.1984) interface to minimize the effort required to implement this interface backed by a "random access" data store (such as an array). For sequential access data (such as a linked list), **AbstractSequentialList** (p.166) should be used in preference to this class.

To implement an unmodifiable list, the programmer needs only to extend this class and provide implementations for the `get(int)` and `size()` (p.1062) methods.

To implement a modifiable list, the programmer must additionally override the `set(int, E)` method (which otherwise throws an `UnsupportedOperationException`). If the list is variable-size the programmer must additionally override the `add(int, E)` and `remove(int)` methods.

The programmer should generally provide a void (no argument) and collection constructor, as per the recommendation in the **Collection** (p.1054) interface specification.

Unlike the other abstract collection implementations, the programmer does not have to provide an iterator implementation; the iterator and list iterator are implemented by this class, on top of the "random access" methods: `get(int)`, `set(int, E)`, `add(int, E)` and `remove(int)`.

The documentation for each non-abstract method in this class describes its implementation in detail. Each of these methods may be overridden if the collection being implemented admits a more efficient implementation.

**Since:**

1.0

#### 6.2.2 Constructor & Destructor Documentation

**6.2.2.1 template<typename E > virtual decaf::util::AbstractList< E >::~~AbstractList () [inline, virtual]**

The documentation for this class was generated from the following file:

- src/main/decaf/util/**AbstractList.h**

## 6.3 decaf::util::AbstractMap< K, V, COMPARATOR > Class Template Reference

This class provides a skeletal implementation of the **Map** (p.2094) interface, to minimize the effort required to implement this interface.

#include <src/main/decaf/util/AbstractMap.h> Inheritance diagram for decaf::util::AbstractMap< K, V, COMPARATOR >:

### Public Member Functions

- virtual ~AbstractMap ()

#### 6.3.1 Detailed Description

```
template<typename K, typename V, typename COMPARATOR> class
decaf::util::AbstractMap< K, V, COMPARATOR >
```

This class provides a skeletal implementation of the **Map** (p.2094) interface, to minimize the effort required to implement this interface. To implement an unmodifiable map, the programmer needs only to extend this class and provide an implementation for the `entrySet` method, which returns a set-view of the map's mappings. Typically, the returned set will, in turn, be implemented atop **AbstractSet** (p.167). This set should not support the `add` or `remove` methods, and its iterator should not support the `remove` method.

To implement a modifiable map, the programmer must additionally override this class's `put` method (which otherwise throws an `UnsupportedOperationException`), and the iterator returned by `entrySet().iterator()` must additionally implement its `remove` method.

The programmer should generally provide a void (no argument) and map constructor, as per the recommendation in the **Map** (p.2094) interface specification.

The documentation for each non-abstract method in this class describes its implementation in detail. Each of these methods may be overridden if the map being implemented admits a more efficient implementation.

Since:

1.0

#### 6.3.2 Constructor & Destructor Documentation

```
6.3.2.1 template<typename K , typename V , typename COMPARATOR >
virtual decaf::util::AbstractMap< K, V, COMPARATOR >::~~AbstractMap
() [inline, virtual]
```

The documentation for this class was generated from the following file:

- src/main/decaf/util/AbstractMap.h

## 6.4 decaf::util::AbstractQueue< E > Class Template Reference

This class provides skeletal implementations of some **Queue** (p. 2671) operations.

#include <src/main/decaf/util/AbstractQueue.h> Inheritance diagram for decaf::util::AbstractQueue< E >:

### Public Member Functions

- **AbstractQueue** ()
- virtual ~**AbstractQueue** ()
- virtual bool **add** (const E &value) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Inserts the specified element into this queue if it is possible to do so immediately without violating capacity restrictions, returning true upon success and throwing an IllegalStateException if no space is currently available.*
- virtual bool **addAll** (const **Collection**< E > &collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )  
*Adds all the elements of a collection to the queue.*
- virtual E **remove** () throw ( decaf::lang::exceptions::NoSuchElementException )  
*Retrieves and removes the head of this queue.*
- virtual E **element** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Retrieves, but does not remove, the head of this queue.*
- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )  
*Removes all elements of the queue.*

### 6.4.1 Detailed Description

template<typename E> class decaf::util::AbstractQueue< E >

This class provides skeletal implementations of some **Queue** (p. 2671) operations. Methods add, remove, and element are based on offer, poll, and peek, respectively.

A **Queue** (p. 2671) implementation that extends this class must minimally define a method **Queue** (p. 2671). **offer**(E) which does not permit insertion of null elements, along with methods **Queue** (p. 2671). **peek**() (p. 2672), **Queue.poll**() (p. 2673), **Collection.size**() (p. 1062), and a **Collection.iterator**() (p. 1830) supporting **Iterator.remove**() (p. 1833). Typically, additional methods will be overridden as well. If these requirements cannot be met, consider instead subclassing **AbstractCollection** (p. 147).

Since:

1.0

## 6.4.2 Constructor & Destructor Documentation

**6.4.2.1** `template<typename E > decaf::util::AbstractQueue< E >::AbstractQueue()` [inline]

**6.4.2.2** `template<typename E > virtual decaf::util::AbstractQueue< E >::~~AbstractQueue()` [inline, virtual]

## 6.4.3 Member Function Documentation

**6.4.3.1** `template<typename E > virtual bool decaf::util::AbstractQueue< E >::add (const E & value) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )` [inline, virtual]

Inserts the specified element into this queue if it is possible to do so immediately without violating capacity restrictions, returning true upon success and throwing an `IllegalStateException` if no space is currently available. This implementation returns true if offer succeeds, else throws an `IllegalStateException`.

### Parameters:

*value* - the element to offer to the **Queue** (p. 2671).

### Returns:

true if the add succeeds.

### Exceptions:

*IllegalArgumentException* if the element cannot be added.

Implements `decaf::util::Collection< E >` (p. 1056).

Reimplemented in `decaf::util::PriorityQueue< E >` (p. 2574).

References `decaf::util::Queue< E >::offer()`.

**6.4.3.2** `template<typename E > virtual bool decaf::util::AbstractQueue< E >::addAll (const Collection< E > & collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )` [inline, virtual]

Adds all the elements of a collection to the queue. If the collection is the queue itself, then an `IllegalArgumentException` will be thrown out. If during the process, some runtime exception is thrown out, then part of the elements in the collection that have successfully added will remain in the queue.

The result of the method is undefined if the collection is modified during the process of the method.

### Parameters:

*collection* - the collection to be added to the queue.

**Returns:**

true if the operation succeeds.

**Exceptions:**

***IllegalArgumentException*** If the collection to be added to the queue is the queue itself.

Reimplemented from **decaf::util::AbstractCollection**< E > (p. 151).

**6.4.3.3** `template<typename E> virtual void decaf::util::AbstractQueue< E >::clear  
( ) throw ( lang::exceptions::UnsupportedOperationException ) [inline,  
virtual]`

Removes all elements of the queue. This implementation repeatedly invokes poll until it returns the empty marker.

Reimplemented from **decaf::util::AbstractCollection**< E > (p. 151).

Reimplemented in **decaf::util::PriorityQueue**< E > (p. 2574).

References **decaf::util::AbstractCollection**< E >::isEmpty(), and **decaf::util::Queue**< E >::poll().

**6.4.3.4** `template<typename E> virtual E decaf::util::AbstractQueue< E >::element  
( ) const throw ( decaf::lang::exceptions::NoSuchElementException )  
[inline, virtual]`

Retrieves, but does not remove, the head of this queue. This method differs from peek only in that it throws an exception if this queue is empty.

This implementation returns the result of peek unless the queue is empty.

**Returns:**

the element in the head of the queue.

**Exceptions:**

***NoSuchElementException*** if the queue is empty.

Implements **decaf::util::Queue**< E > (p. 2672).

References **decaf::util::Queue**< E >::peek().

**6.4.3.5** `template<typename E> virtual E decaf::util::AbstractQueue< E >::remove  
( ) throw ( decaf::lang::exceptions::NoSuchElementException ) [inline,  
virtual]`

Retrieves and removes the head of this queue. This method differs from poll only in that it throws an exception if this queue is empty.

This implementation returns the result of poll unless the queue is empty.

**Returns:**

a copy of the element in the head of the queue.

**Exceptions:**

*NoSuchElementException* if the queue is empty.

Implements **decaf::util::Queue< E >** (p. 2673).

Reimplemented in **decaf::util::PriorityQueue< E >** (p. 2577).

References **decaf::util::Queue< E >::poll()**.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/AbstractQueue.h`

## 6.5 decaf::util::AbstractSequentialList< E > Class Template Reference

This class provides a skeletal implementation of the **List** (p.1984) interface to minimize the effort required to implement this interface backed by a "sequential access" data store (such as a linked list).

#include <src/main/decaf/util/AbstractSequentialList.h> Inheritance diagram for decaf::util::AbstractSequentialList< E >:

### Public Member Functions

- virtual ~AbstractSequentialList ()

#### 6.5.1 Detailed Description

template<typename E> class decaf::util::AbstractSequentialList< E >

This class provides a skeletal implementation of the **List** (p.1984) interface to minimize the effort required to implement this interface backed by a "sequential access" data store (such as a linked list). For random access data (such as an array), **AbstractList** (p.160) should be used in preference to this class.

This class is the opposite of the **AbstractList** (p.160) class in the sense that it implements the "random access" methods (get(int index), set(int index, E element), add(int index, E element) and remove(int index)) on top of the list's list iterator, instead of the other way around.

To implement a list the programmer needs only to extend this class and provide implementations for the listIterator and size methods. For an unmodifiable list, the programmer need only implement the list iterator's hasNext, next, hasPrevious, previous and index methods.

For a modifiable list the programmer should additionally implement the list iterator's set method. For a variable-size list the programmer should additionally implement the list iterator's remove and add methods.

The programmer should generally provide a void (no argument) and collection constructor, as per the recommendation in the **Collection** (p.1054) interface specification.

Since:

1.0

#### 6.5.2 Constructor & Destructor Documentation

6.5.2.1 template<typename E > virtual decaf::util::AbstractSequentialList< E >::~~AbstractSequentialList () [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/decaf/util/AbstractSequentialList.h



## 6.6 decaf::util::AbstractSet< E > Class Template Reference

This class provides a skeletal implementation of the **Set** (p. 2905) interface to minimize the effort required to implement this interface.

```
#include <src/main/decaf/util/AbstractSet.h> Inheritance      diagram      for
decaf::util::AbstractSet< E >:
```

### Public Member Functions

- virtual **~AbstractSet** ()
- virtual bool **removeAll** (const **Collection**< E > &collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Removes from this set all of its elements that are contained in the specified collection (optional operation).*

#### 6.6.1 Detailed Description

**template<typename E> class decaf::util::AbstractSet< E >**

This class provides a skeletal implementation of the **Set** (p. 2905) interface to minimize the effort required to implement this interface. The process of implementing a set by extending this class is identical to that of implementing a **Collection** (p. 1054) by extending **AbstractCollection** (p. 147), except that all of the methods and constructors in subclasses of this class must obey the additional constraints imposed by the **Set** (p. 2905) interface (for instance, the add method must not permit addition of multiple instances of an object to a set).

Since:

1.0

#### 6.6.2 Constructor & Destructor Documentation

**6.6.2.1** **template<typename E> virtual decaf::util::AbstractSet< E >::~~AbstractSet**  
**()** [inline, virtual]

#### 6.6.3 Member Function Documentation

**6.6.3.1** **template<typename E> virtual bool decaf::util::AbstractSet<**  
**E >::removeAll (const Collection< E > & collection)**  
**throw ( lang::exceptions::UnsupportedOperationException,**  
**lang::exceptions::IllegalArgumentException )** [inline, virtual]

Removes from this set all of its elements that are contained in the specified collection (optional operation). If the specified collection is also a set, this operation effectively modifies this set so that its value is the asymmetric set difference of the two sets.

This implementation determines which is the smaller of this set and the specified collection, by invoking the size method on each. If this set has fewer elements, then the implementation iterates

over this set, checking each element returned by the iterator in turn to see if it is contained in the specified collection. If it is so contained, it is removed from this set with the iterator's remove method. If the specified collection has fewer elements, then the implementation iterates over the specified collection, removing from this set each element returned by the iterator, using this set's remove method.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by the iterator method does not implement the remove method.

**Parameters:**

*collection* - The **Collection** (p. 1054) whose elements are to be retained

**Returns:**

true if the collection changed as a result of this call

**Exceptions:**

***UnsupportedOperationException***

***IllegalArgumentException***

Reimplemented from `decaf::util::AbstractCollection< E >` (p. 155).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/AbstractSet.h`

## 6.7 activemq::transport::AbstractTransportFactory Class Reference

Abstract implementation of the **TransportFactory** (p. 3279) interface, providing the base functionality that's common to most of the **TransportFactory** (p. 3279) instances.

#include <src/main/activemq/transport/AbstractTransportFactory.h> Inheritance diagram for activemq::transport::AbstractTransportFactory:

### Public Member Functions

- virtual **~AbstractTransportFactory** ()

### Protected Member Functions

- virtual **Pointer< wireformat::WireFormat > createWireFormat** (const **decaf::util::Properties** &properties) throw ( **decaf::lang::exceptions::NoSuchElementException** )

*Creates the WireFormat that is configured for this **Transport** (p. 3273) and returns it.*

#### 6.7.1 Detailed Description

Abstract implementation of the **TransportFactory** (p. 3279) interface, providing the base functionality that's common to most of the **TransportFactory** (p. 3279) instances.

**Since:**

3.0

#### 6.7.2 Constructor & Destructor Documentation

- 6.7.2.1** virtual **activemq::transport::AbstractTransportFactory::~~AbstractTransportFactory** () [inline, virtual]

#### 6.7.3 Member Function Documentation

- 6.7.3.1** virtual **Pointer<wireformat::WireFormat> activemq::transport::AbstractTransportFactory::createWireFormat** (const **decaf::util::Properties** & *properties*) throw ( **decaf::lang::exceptions::NoSuchElementException** ) [protected, virtual]

Creates the WireFormat that is configured for this **Transport** (p.3273) and returns it. The default WireFormat is Openwire.

**Parameters:**

*properties* The properties that were configured on the URI.

**Returns:**

a pointer to a `WireFormat` instance that the caller then owns.

**Exceptions:**

***NoSuchElementException*** if the configured `WireFormat` is not found.

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/AbstractTransportFactory.h`

## 6.8 activemq::core::ActiveMQAckHandler Class Reference

Interface class that is used to give CMS Messages an interface to Ack themselves with.

```
#include <src/main/activemq/core/ActiveMQAckHandler.h>
```

### Public Member Functions

- virtual `~ActiveMQAckHandler ()`
- virtual void `acknowledgeMessage (const commands::Message *message)=0` throw ( cms::CMSException )

*Method called to acknowledge the message passed.*

#### 6.8.1 Detailed Description

Interface class that is used to give CMS Messages an interface to Ack themselves with.

**Since:**

2.0

#### 6.8.2 Constructor & Destructor Documentation

- 6.8.2.1 virtual `activemq::core::ActiveMQAckHandler::~~ActiveMQAckHandler ()`  
[inline, virtual]

#### 6.8.3 Member Function Documentation

- 6.8.3.1 virtual void `activemq::core::ActiveMQAckHandler::acknowledgeMessage (const commands::Message * message)` throw ( cms::CMSException )  
[pure virtual]

Method called to acknowledge the message passed.

**Parameters:**

*message* Message to Acknowledge

**Exceptions:**

*CMSException*

The documentation for this class was generated from the following file:

- `src/main/activemq/core/ActiveMQAckHandler.h`

## 6.9 activemq::commands::ActiveMQBlobMessage Class Reference

#include <src/main/activemq/commands/ActiveMQBlobMessage.h> Inheritance diagram for activemq::commands::ActiveMQBlobMessage:

### Public Member Functions

- **ActiveMQBlobMessage** ()
- virtual **~ActiveMQBlobMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ActiveMQBlobMessage \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual **cms::Message \* clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- std::string **getRemoteBlobUrl** () const  
*Get the Remote URL of the Blob.*
- void **setRemoteBlobUrl** (const std::string &remoteURL)  
*Set the Remote URL of the Blob.*
- std::string **getMimeType** () const  
*Get the Mime Type of the Blob.*
- void **setMimeType** (const std::string &mimeType)  
*Set the Mime Type of the Blob.*
- std::string **getName** () const  
*Gets the Name of the Blob.*
- void **setName** (const std::string &name)  
*Sets the Name of the Blob.*

- bool **isDeletedByBroker** () const  
*Gets if this Blob is deleted by the Broker.*
- void **setDeletedByBroker** (bool value)  
*Sets the Deleted By Broker flag.*

## Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQBLOBMESSAGE** = 29
- static const std::string **BINARY\_MIME\_TYPE**

## 6.9.1 Constructor & Destructor Documentation

**6.9.1.1** `activemq::commands::ActiveMQBlobMessage::ActiveMQBlobMessage ()`

**6.9.1.2** `virtual  
activemq::commands::ActiveMQBlobMessage::~ActiveMQBlobMessage ()  
[inline, virtual]`

## 6.9.2 Member Function Documentation

**6.9.2.1** `virtual cms::Message* activemq::commands::ActiveMQBlobMessage::clone  
() const [inline, virtual]`

Clone this message exactly, returns a new instance that the caller is required to delete.

### Returns:

new copy of this message

Implements **cms::Message** (p. 2168).

**6.9.2.2** `virtual ActiveMQBlobMessage* ac-  
tivemq::commands::ActiveMQBlobMessage::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from **activemq::commands::Message** (p. 2149).

**6.9.2.3** `virtual void ac-  
tivemq::commands::ActiveMQBlobMessage::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::Message` (p. 2150).

**6.9.2.4** `virtual bool activemq::commands::ActiveMQBlobMessage::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 369).

**6.9.2.5** `virtual unsigned char activemq::commands::ActiveMQBlobMessage::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from `activemq::commands::Message` (p. 2152).

**6.9.2.6** `std::string activemq::commands::ActiveMQBlobMessage::getMimeType () const` [inline]

Get the Mime Type of the Blob.

**Returns:**

string holding the MIME Type.

**6.9.2.7** `std::string activemq::commands::ActiveMQBlobMessage::getName () const` [inline]

Gets the Name of the Blob.

**Returns:**

string name of the Blob.



**6.9.2.8** `std::string activemq::commands::ActiveMQBlobMessage::getRemoteBlobUrl () const` [inline]

Get the Remote URL of the Blob.

**Returns:**

string from of the Remote Blob URL.

**6.9.2.9** `bool activemq::commands::ActiveMQBlobMessage::isDeletedByBroker () const` [inline]

Gets if this Blob is deleted by the Broker.

**Returns:**

true if the Blob is deleted by the Broker.

**6.9.2.10** `void activemq::commands::ActiveMQBlobMessage::setDeletedByBroker (bool value)` [inline]

Sets the Deleted By Broker flag.

**Parameters:**

*value* - set the Delete by broker flag to value.

**6.9.2.11** `void activemq::commands::ActiveMQBlobMessage::setMimeType (const std::string & mimeType)` [inline]

Set the Mime Type of the Blob.

**Parameters:**

*mimeType* - String holding the MIME Type.

**6.9.2.12** `void activemq::commands::ActiveMQBlobMessage::setName (const std::string & name)` [inline]

Sets the Name of the Blob.

**Parameters:**

*name* - Name of the Blob.

**6.9.2.13** `void activemq::commands::ActiveMQBlobMessage::setRemoteBlobUrl (const std::string & remoteURL)` [inline]

Set the Remote URL of the Blob.

**Parameters:**

*remoteURL* - String form of the Remote URL.

**6.9.2.14** `virtual std::string activemq::commands::ActiveMQBlobMessage::toString  
() const [virtual]`

Returns a string containing the information for this **DataSet** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::Message` (p. 2159).

### 6.9.3 Field Documentation

**6.9.3.1** `const std::string activemq::commands::ActiveMQBlobMessage::BINARY_-  
MIME_TYPE [static]`

**6.9.3.2** `const unsigned char activemq::commands::ActiveMQBlobMessage::ID_-  
ACTIVEMQBLOBMESSAGE = 29 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQBlobMessage.h`

## 6.10 activemq:wireformat::openwire::marshal:v3::ActiveMQBlobMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p.177).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQBlobMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v3::ActiveMQBlobMessageMarshaller:

### Public Member Functions

- **ActiveMQBlobMessageMarshaller** ()
- virtual ~**ActiveMQBlobMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.10.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p.177).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.10.2 Constructor & Destructor Documentation

**6.10.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::ActiveMQBlobMessageMarshaller()` [inline]

**6.10.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::~~ActiveMQBlobMessageMarshaller()` [inline, virtual]

## 6.10.3 Member Function Documentation

**6.10.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.10.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.10.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.10.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.10.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2317).

**6.10.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.10.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQBlobMessageMarshaller.h`

## 6.11 activemq:wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 181).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQBlobMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller:

### Public Member Functions

- **ActiveMQBlobMessageMarshaller** ()
- virtual ~**ActiveMQBlobMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.11.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p.181).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.11.2 Constructor & Destructor Documentation

**6.11.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::ActiveMQBlobMessageMarshaller()` [inline]

**6.11.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::~~ActiveMQBlobMessageMarshaller()` [inline, virtual]

### 6.11.3 Member Function Documentation

**6.11.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

#### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.11.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

#### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.11.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::marshal(const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.11.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.11.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2327).

**6.11.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

**6.11.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQBlobMessageMarshaller.h`

## 6.12 activemq:wireformat::openwire::marshal:v4::ActiveMQBlobMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 185).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQBlobMessageMarshaller.h> Inheritance diagram for activemq:wireformat::openwire::marshal:v4::ActiveMQBlobMessageMarshaller:

### Public Member Functions

- **ActiveMQBlobMessageMarshaller** ()
- virtual **~ActiveMQBlobMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.12.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 185).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.12.2 Constructor & Destructor Documentation

**6.12.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::ActiveMQBlobMessageMarshaller()` [inline]

**6.12.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::~~ActiveMQBlobMessageMarshaller()` [inline, virtual]

## 6.12.3 Member Function Documentation

**6.12.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.12.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.12.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.12.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.12.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2312).

**6.12.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

**6.12.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQBlobMessageMarshaller.h`

## 6.13 activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 189).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQBlobMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller:

### Public Member Functions

- **ActiveMQBlobMessageMarshaller** ()
- virtual **~ActiveMQBlobMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

#### 6.13.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 189).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.13.2 Constructor & Destructor Documentation

**6.13.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::ActiveMQBlobMessageMarshaller()` [inline]

**6.13.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::~~ActiveMQBlobMessageMarshaller()` [inline, virtual]

### 6.13.3 Member Function Documentation

**6.13.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

#### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.13.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

#### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.13.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::looseMarshal(const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.13.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.13.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2322).

**6.13.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

**6.13.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQBlobMessageMarshaller.h`

## 6.14 activemq:wireformat::openwire::marshal:v2::ActiveMQBlobMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p.193).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQBlobMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v2::ActiveMQBlobMessageMarshaller:

### Public Member Functions

- **ActiveMQBlobMessageMarshaller** ()
- virtual ~**ActiveMQBlobMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.14.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p.193).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.14.2 Constructor & Destructor Documentation

**6.14.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::ActiveMQBlobMessageMarshaller()` [inline]

**6.14.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::~~ActiveMQBlobMessageMarshaller()` [inline, virtual]

## 6.14.3 Member Function Documentation

**6.14.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.14.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.14.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.14.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.14.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2307).

**6.14.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.14.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQBlobMessageMarshaller.h`

## 6.15 activemq::commands::ActiveMQBytesMessage Class Reference

#include <src/main/activemq/commands/ActiveMQBytesMessage.h> Inheritance diagram for activemq::commands::ActiveMQBytesMessage:

### Public Member Functions

- **ActiveMQBytesMessage** ()
- virtual **~ActiveMQBytesMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ActiveMQBytesMessage** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual **cms::BytesMessage** \* **clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- virtual void **clearBody** () throw ( cms::CMSException )  
*Clears out the body of the message.*
- virtual void **onSend** ()  
*Store the Data that was written to the stream before a send.*
- virtual void **setBodyBytes** (const unsigned char \*buffer, std::size\_t numBytes) throw ( cms::MessageNotWriteableException, cms::CMSException )  
*sets the bytes given to the message body.*
- virtual unsigned char \* **getBodyBytes** () const throw ( cms::MessageNotReadableException, cms::CMSException )  
*Gets the bytes that are contained in this message, user should copy this data into a user allocated buffer.*
- virtual std::size\_t **getBodyLength** () const throw ( cms::MessageNotReadableException, cms::CMSException )  
*Returns the number of bytes contained in the body of this message.*

- virtual void **reset** () throw ( cms::MessageFormatException, cms::CMSEException )  
*Puts the message body in read-only mode and repositions the stream of bytes to the beginning.*
- virtual bool **readBoolean** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Boolean from the Bytes message stream.*
- virtual void **writeBoolean** (bool value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a boolean to the bytes message stream as a 1-byte value.*
- virtual unsigned char **readByte** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Byte from the Bytes message stream.*
- virtual void **writeByte** (unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte to the bytes message stream as a 1-byte value.*
- virtual std::size\_t **readBytes** (std::vector< unsigned char > &value) const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a byte array from the bytes message stream.*
- virtual void **writeBytes** (const std::vector< unsigned char > &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte array to the bytes message stream using the vector size as the number of bytes to write.*
- virtual std::size\_t **readBytes** (unsigned char \*buffer, std::size\_t length) const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a portion of the bytes message stream.*
- virtual void **writeBytes** (const unsigned char \*value, std::size\_t offset, std::size\_t length) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a portion of a byte array to the bytes message stream.*
- virtual char **readChar** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Char from the Bytes message stream.*
- virtual void **writeChar** (char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a char to the bytes message stream as a 1-byte value.*
- virtual float **readFloat** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 32 bit float from the Bytes message stream.*
- virtual void **writeFloat** (float value) throw ( cms::MessageNotWriteableException, cms::CMSEException )



*Writes a float to the bytes message stream as a 4 byte value.*

- virtual double **readDouble** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 64 bit double from the Bytes message stream.*

- virtual void **writeDouble** (double value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a double to the bytes message stream as a 8 byte value.*

- virtual short **readShort** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit signed short from the Bytes message stream.*

- virtual void **writeShort** (short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed short to the bytes message stream as a 2 byte value.*

- virtual unsigned short **readUnsignedShort** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit unsigned short from the Bytes message stream.*

- virtual void **writeUnsignedShort** (unsigned short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a unsigned short to the bytes message stream as a 2 byte value.*

- virtual int **readInt** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 32 bit signed integer from the Bytes message stream.*

- virtual void **writeInt** (int value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed int to the bytes message stream as a 4 byte value.*

- virtual long long **readLong** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 64 bit long from the Bytes message stream.*

- virtual void **writeLong** (long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a long long to the bytes message stream as a 8 byte value.*

- virtual std::string **readString** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )

*Reads an ASCII String from the Bytes message stream.*

- virtual void **writeString** (const std::string &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes an ASCII String to the Bytes message stream.*

- virtual std::string **readUTF** () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads an UTF String from the BytesMessage stream.*
- virtual void **writeUTF** (const std::string &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes an UTF String to the BytesMessage stream.*

## Static Public Attributes

- static const unsigned char **ID \_ACTIVEMQBYTESMESSAGE** = 24

### 6.15.1 Constructor & Destructor Documentation

**6.15.1.1** `activemq::commands::ActiveMQBytesMessage::ActiveMQBytesMessage ()`

**6.15.1.2** `virtual  
activemq::commands::ActiveMQBytesMessage::~~ActiveMQBytesMessage  
( ) [virtual]`

### 6.15.2 Member Function Documentation

**6.15.2.1** `virtual void activemq::commands::ActiveMQBytesMessage::clearBody ()  
throw ( cms::CMSEException ) [virtual]`

Clears out the body of the message. This does not clear the headers or properties.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 368).

**6.15.2.2** `virtual cms::BytesMessage* ac-  
tivemq::commands::ActiveMQBytesMessage::clone () const  
[inline, virtual]`

Clone this message exactly, returns a new instance that the caller is required to delete.

#### Returns:

new copy of this message

Implements `cms::BytesMessage` (p. 941).

**6.15.2.3** `virtual ActiveMQBytesMessage* ac-  
tivemq::commands::ActiveMQBytesMessage::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Message` (p. 2149).

**6.15.2.4** `virtual void activemq::commands::ActiveMQBytesMessage::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::Message` (p. 2150).

**6.15.2.5** `virtual bool activemq::commands::ActiveMQBytesMessage::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Parameters:**

*value* The `Command` (p. 1063) to compare to this one.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 369).

**6.15.2.6** `virtual unsigned char* activemq::commands::ActiveMQBytesMessage::getBodyBytes () const throw ( cms::MessageNotReadableException, cms::CMSEException ) [virtual]`

Gets the bytes that are contained in this message, user should copy this data into a user allocated buffer. Call `getBodyLength` to determine the number of bytes to expect.

**Returns:**

const pointer to a byte buffer

**Exceptions:**

*CMSEException* - If an internal error occurs.

*MessageNotReadableException* - If the message is in Write Only Mode.

Implements `cms::BytesMessage` (p. 941).

**6.15.2.7** `virtual std::size_t activemq::commands::ActiveMQBytesMessage::getBodyLength () const throw ( cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Returns the number of bytes contained in the body of this message.

**Returns:**

number of bytes.

**Exceptions:**

*CMSException* - If an internal error occurs.

*MessageNotReadableException* - If the message is in Write Only Mode.

Implements `cms::BytesMessage` (p. 942).

**6.15.2.8** `virtual unsigned char activemq::commands::ActiveMQBytesMessage::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new `DataStructure` (p. 1461) type copy.

Reimplemented from `activemq::commands::Message` (p. 2152).

**6.15.2.9** `virtual void activemq::commands::ActiveMQBytesMessage::onSend () [virtual]`

Store the Data that was written to the stream before a send.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 376).

**6.15.2.10** `virtual bool activemq::commands::ActiveMQBytesMessage::readBoolean () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Reads a Boolean from the Bytes message stream.

**Returns:**

boolean value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::BytesMessage` (p. 942).

**6.15.2.11** `virtual unsigned char activemq::commands::ActiveMQBytesMessage::readByte() const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Reads a Byte from the Bytes message stream.

**Returns:**

unsigned char value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::BytesMessage` (p. 942).

**6.15.2.12** `virtual std::size_t activemq::commands::ActiveMQBytesMessage::readBytes(unsigned char * buffer, std::size_t length) const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Reads a portion of the bytes message stream. If the length of array value is less than the number of bytes remaining to be read from the stream, the array should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of array value, the bytes should be read into the array. The return value of the total number of bytes read will be less than the length of the array, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

If length is negative, or length is greater than the length of the array value, then an `IndexOutOfBoundsException` is thrown. No bytes will be read from the stream for this exception case.

**Parameters:**

*buffer* the buffer into which the data is read

*length* the number of bytes to read; must be less than or equal to value.length

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::BytesMessage` (p. 943).

**6.15.2.13** `virtual std::size_t activemq::commands::ActiveMQBytesMessage::readBytes (std::vector< unsigned char > & value) const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException ) [virtual]`

Reads a byte array from the bytes message stream. If the length of vector value is less than the number of bytes remaining to be read from the stream, the vector should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of vector value, the bytes should be read into the vector. The return value of the total number of bytes read will be less than the length of the vector, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

**Parameters:**

*value* buffer to place data in

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::BytesMessage` (p. 943).

**6.15.2.14** `virtual char activemq::commands::ActiveMQBytesMessage::readChar () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException ) [virtual]`

Reads a Char from the Bytes message stream.

**Returns:**

char value from stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::BytesMessage` (p. 944).

**6.15.2.15** `virtual double activemq::commands::ActiveMQBytesMessage::readDouble () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException ) [virtual]`

Reads a 64 bit double from the Bytes message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 944).

**6.15.2.16** virtual float activemq::commands::ActiveMQBytesMessage::readFloat  
( ) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSException ) [virtual]

Reads a 32 bit float from the Bytes message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 945).

**6.15.2.17** virtual int activemq::commands::ActiveMQBytesMessage::readInt  
( ) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSException ) [virtual]

Reads a 32 bit signed integer from the Bytes message stream.

**Returns:**

int value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 945).

**6.15.2.18** virtual long long ac-  
tivismq::commands::ActiveMQBytesMessage::readLong  
( ) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSException ) [virtual]

Reads a 64 bit long from the Bytes message stream.

**Returns:**

long long value from stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 945).

**6.15.2.19** virtual short activemq::commands::ActiveMQBytesMessage::readShort  
 () const throw ( cms::MessageEOFException,  
 cms::MessageNotReadableException, cms::CMSEException ) [virtual]

Reads a 16 bit signed short from the Bytes message stream.

**Returns:**

short value from stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 946).

**6.15.2.20** virtual std::string ac-  
 tivemq::commands::ActiveMQBytesMessage::readString  
 () const throw ( cms::MessageEOFException,  
 cms::MessageNotReadableException, cms::CMSEException ) [virtual]

Reads an ASCII String from the Bytes message stream.

**Returns:**

String from stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::BytesMessage** (p. 946).



**6.15.2.21** virtual unsigned short activemq::commands::ActiveMQBytesMessage::readUnsignedShort  
( ) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSException ) [virtual]

Reads a 16 bit unsigned short from the Bytes message stream.

**Returns:**

unsigned short value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements cms::BytesMessage (p. 946).

**6.15.2.22** virtual std::string activemq::commands::ActiveMQBytesMessage::readUTF  
( ) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSException ) [virtual]

Reads an UTF String from the BytesMessage stream.

**Returns:**

String from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements cms::BytesMessage (p. 947).

**6.15.2.23** virtual void activemq::commands::ActiveMQBytesMessage::reset ()  
throw ( cms::MessageFormatException, cms::CMSException ) [virtual]

Puts the message body in read-only mode and repositions the stream of bytes to the beginning.

**Exceptions:**

*CMSException* - If the provider fails to perform the reset operation.

*MessageFormatException* - If the Message (p. 2145) has an invalid format.

Implements cms::BytesMessage (p. 947).

**6.15.2.24** `virtual void activemq::commands::ActiveMQBytesMessage::setBodyBytes (const unsigned char * buffer, std::size_t numBytes) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

sets the bytes given to the message body.

**Parameters:**

*buffer* Byte Buffer to copy

*numBytes* Number of bytes in Buffer to copy

**Exceptions:**

*CMSException* - If an internal error occurs.

*MessageNotWriteableException* - if in Read Only Mode.

Implements `cms::BytesMessage` (p. 947).

**6.15.2.25** `virtual std::string activemq::commands::ActiveMQBytesMessage::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::Message` (p. 2159).

**6.15.2.26** `virtual void activemq::commands::ActiveMQBytesMessage::writeBoolean (bool value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a boolean to the bytes message stream as a 1-byte value. The value true is written as the value (byte)1; the value false is written as the value (byte)0.

**Parameters:**

*value* boolean to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements `cms::BytesMessage` (p. 948).

**6.15.2.27** `virtual void activemq::commands::ActiveMQBytesMessage::writeByte (unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a byte to the bytes message stream as a 1-byte value.

**Parameters:**

*value* byte to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 948).

**6.15.2.28** `virtual void activemq::commands::ActiveMQBytesMessage::writeBytes  
(const unsigned char * value, std::size_t offset, std::size_t length) throw  
( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a portion of a byte array to the bytes message stream. size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

*offset* the initial offset within the byte array

*length* the number of bytes to use

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 948).

**6.15.2.29** `virtual void activemq::commands::ActiveMQBytesMessage::writeBytes  
(const std::vector< unsigned char > & value) throw (  
cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a byte array to the bytes message stream using the vector size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 949).

**6.15.2.30** `virtual void activemq::commands::ActiveMQBytesMessage::writeChar  
(char value) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]`

Writes a char to the bytes message stream as a 1-byte value.

**Parameters:**

*value* char to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 949).

**6.15.2.31** virtual void activemq::commands::ActiveMQBytesMessage::writeDouble  
(double *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSEException ) [virtual]

Writes a double to the bytes message stream as a 8 byte value.

**Parameters:**

*value* double to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 949).

**6.15.2.32** virtual void activemq::commands::ActiveMQBytesMessage::writeFloat  
(float *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSEException ) [virtual]

Writes a float to the bytes message stream as a 4 byte value.

**Parameters:**

*value* float to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 950).

**6.15.2.33** virtual void activemq::commands::ActiveMQBytesMessage::writeInt (int  
*value*) throw ( cms::MessageNotWriteableException, cms::CMSEException  
) [virtual]

Writes a signed int to the bytes message stream as a 4 byte value.

**Parameters:**

*value* signed int to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 950).

**6.15.2.34** virtual void activemq::commands::ActiveMQBytesMessage::writeLong  
(long long *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes a long long to the bytes message stream as a 8 byte value.

**Parameters:**

*value* signed long long to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 950).

**6.15.2.35** virtual void activemq::commands::ActiveMQBytesMessage::writeShort  
(short *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes a signed short to the bytes message stream as a 2 byte value.

**Parameters:**

*value* signed short to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 951).

**6.15.2.36** virtual void activemq::commands::ActiveMQBytesMessage::writeString  
(const std::string & *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes an ASCII String to the Bytes message stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::BytesMessage** (p. 951).

**6.15.2.37** virtual void activemq::commands::ActiveMQBytesMessage::writeUnsignedShort (unsigned short *value*) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]

Writes a unsigned short to the bytes message stream as a 2 byte value.

**Parameters:**

*value* unsigned short to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements cms::BytesMessage (p. 951).

**6.15.2.38** virtual void activemq::commands::ActiveMQBytesMessage::writeUTF (const std::string & *value*) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]

Writes an UTF String to the BytesMessage stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* - if the message is in write-only mode.

Implements cms::BytesMessage (p. 952).

## 6.15.3 Field Documentation

**6.15.3.1** const unsigned char activemq::commands::ActiveMQBytesMessage::ID\_ - ACTIVEMQBYTESMESSAGE = 24 [static]

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**ActiveMQBytesMessage.h**

## 6.16

`activemq:wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller`

Class Reference

~~6.16~~ `activemq:wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` <sup>215</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 213).

```
#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQBytesMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller:
```

## Public Member Functions

- **ActiveMQBytesMessageMarshaller** ()
- virtual **~ActiveMQBytesMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.16.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 213).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.16.2 Constructor & Destructor Documentation

**6.16.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::ActiveMQBytesMessageMarshaller()` [inline]

**6.16.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::~~ActiveMQBytesMessageMarshaller()` [inline, virtual]

## 6.16.3 Member Function Documentation

**6.16.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.16.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.16.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



## 6.16

**activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2316).

### 6.16.3.4 virtual void ac-

```
timemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2316).

### 6.16.3.5 virtual int ac-

```
timemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2317).

**6.16.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.16.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQBytesMessageMarshaller.h`

## 6.17

`activemq:wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller`

Class Reference

~~6.17~~ `activemq:wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` <sup>219</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 217).

`#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQBytesMessageMarshaller.h>` Inherits from `activemq:wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller`:

## Public Member Functions

- **ActiveMQBytesMessageMarshaller** ()
- virtual **~ActiveMQBytesMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.17.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 217).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.17.2 Constructor & Destructor Documentation

**6.17.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::ActiveMQBytesMessageMarshaller()` [inline]

**6.17.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::~~ActiveMQBytesMessageMarshaller()` [inline, virtual]

## 6.17.3 Member Function Documentation

**6.17.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.17.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.17.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.17

**activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller**

**Class Reference**

**221**

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2326).

### 6.17.3.4 virtual void ac-

```
ativemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2326).

### 6.17.3.5 virtual int ac-

```
ativemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2327).

**6.17.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

**6.17.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQBytesMessageMarshaller.h`

## 6.18

`activemq:wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`

Class Reference

~~6.18~~ `activemq:wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` <sup>223</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 221).

`#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQBytesMessageMarshaller.h>` Inherits from `activemq:wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`:  
UML diagram for `activemq:wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`:

## Public Member Functions

- **ActiveMQBytesMessageMarshaller** ()
- virtual **~ActiveMQBytesMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.18.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 221).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the `activemq-openwire-generator` module

## 6.18.2 Constructor & Destructor Documentation

**6.18.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::ActiveMQBytesMessageMarshaller()` [inline]

**6.18.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::~~ActiveMQBytesMessageMarshaller()` [inline, virtual]

## 6.18.3 Member Function Documentation

**6.18.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.18.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.18.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::looseMarshal(const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



## 6.18

**activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2311).

### 6.18.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2311).

### 6.18.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2312).

**6.18.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

**6.18.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQBytesMessageMarshaller.h`

## 6.19

`activemq:wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller`

Class Reference

~~6.19~~ `activemq:wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` <sup>227</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 225).

`#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQBytesMessageMarshaller.h>` Inherits from `activemq:wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller`:

## Public Member Functions

- **ActiveMQBytesMessageMarshaller** ()
- virtual **~ActiveMQBytesMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.19.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 225).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the `activemq-openwire-generator` module

## 6.19.2 Constructor & Destructor Documentation

**6.19.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::ActiveMQBytesMessageMarshaller()` [inline]

**6.19.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::~~ActiveMQBytesMessageMarshaller()` [inline, virtual]

## 6.19.3 Member Function Documentation

**6.19.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::createObject(const commands::DataStructure&) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.19.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.19.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::looseMarshal(const commands::DataStructure&, const OpenWireFormat* wireFormat, commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.19

**activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller**

**Class Reference**

**229**

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2321).

### 6.19.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2321).

### 6.19.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2322).

**6.19.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

**6.19.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQBytesMessageMarshaller.h`

## 6.20

activemq:wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller

Class Reference

6.20 ~~activemq:wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller~~<sup>231</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 229).

```
#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQBytesMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller:
```

## Public Member Functions

- **ActiveMQBytesMessageMarshaller** ()
- virtual **~ActiveMQBytesMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.20.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 229).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.20.2 Constructor & Destructor Documentation

**6.20.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::ActiveMQBytesMessageMarshaller()` [inline]

**6.20.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::~~ActiveMQBytesMessageMarshaller()` [inline, virtual]

## 6.20.3 Member Function Documentation

**6.20.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.20.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.20.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::looseMarshal(const commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



## 6.20

**activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller**

**Class Reference**

**233**

Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2306).

### 6.20.3.4 virtual void ac-

```
ativemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2306).

### 6.20.3.5 virtual int ac-

```
ativemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2307).

**6.20.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.20.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQBytesMessageMarshaller.h`

## 6.21 activemq::core::ActiveMQConnection Class Reference

Concrete connection used for all connectors to the ActiveMQ broker.

#include <src/main/activemq/core/ActiveMQConnection.h> Inheritance diagram for activemq::core::ActiveMQConnection:

### Public Member Functions

- **ActiveMQConnection** (const **Pointer**< **transport::Transport** > &transport, const **Pointer**< **decaf::util::Properties** > &properties)  
*Constructor.*
- virtual ~**ActiveMQConnection** ()
- virtual void **removeSession** (**ActiveMQSession** \*session) throw ( cms::CMSException )  
*Removes the session resources for the given session instance.*
- virtual void **addProducer** (**ActiveMQProducer** \*producer) throw ( cms::CMSException )  
*Adds an active Producer to the Set of known producers.*
- virtual void **removeProducer** (const **Pointer**< **commands::ProducerId** > &producerId) throw ( cms::CMSException )  
*Removes an active Producer to the Set of known producers.*
- virtual void **addDispatcher** (const **Pointer**< **commands::ConsumerId** > &consumer, **Dispatcher** \*dispatcher) throw ( cms::CMSException )  
*Adds a dispatcher for a consumer.*
- virtual void **removeDispatcher** (const **Pointer**< **commands::ConsumerId** > &consumer) throw ( cms::CMSException )  
*Removes the dispatcher for a consumer.*
- virtual void **sendPullRequest** (const **commands::ConsumerInfo** \*consumer, long long timeout) throw ( exceptions::ActiveMQException )  
*If supported sends a message pull request to the service provider asking for the delivery of a new message.*
- bool **isClosed** () const  
*Checks if this connection has been closed.*
- bool **isStarted** () const  
*Check if this connection has been started.*
- virtual void **destroyDestination** (const **commands::ActiveMQDestination** \*destination) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalStateException, decaf::lang::exceptions::UnsupportedOperationException, activemq::exceptions::ActiveMQException )

*Requests that the Broker removes the given Destination.*

- virtual void **destroyDestination** (const **cms::Destination** \*destination) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalStateException, decaf::lang::exceptions::UnsupportedOperationException, activemq::exceptions::ActiveMQException )

*Requests that the Broker removes the given Destination.*

- virtual const **cms::ConnectionMetaData** \* **getMetaData** () const throw ( cms::CMSException )

*Gets the metadata for this connection.*

- virtual **cms::Session** \* **createSession** () throw ( cms::CMSException )

*Creates a new Session to work for this Connection.*

- virtual **cms::Session** \* **createSession** (cms::Session::AcknowledgeMode ackMode) throw ( cms::CMSException )

*Creates a new Session to work for this Connection using the specified acknowledgment mode.*

- virtual std::string **getClientID** () const

*Get the Client Id for this session.*

- virtual void **close** () throw ( cms::CMSException )

*Closes this connection as well as any Sessions created from it (and those Sessions' consumers and producers).*

- virtual void **start** () throw ( cms::CMSException )

*Starts or (restarts) a connections delivery of incoming messages.*

- virtual void **stop** () throw ( cms::CMSException )

*Stop the flow of incoming messages.*

- virtual **cms::ExceptionListener** \* **getExceptionListener** () const

*Gets the registered Exception Listener for this connection.*

- virtual void **setExceptionListener** (cms::ExceptionListener \*listener)

*Sets the registered Exception Listener for this connection.*

- void **addTransportListener** (transport::TransportListener \*transportListener)

*Adds a transport listener so that a client can be notified of events in the underlying transport, client's are always notified after the event has been processed by the Connection class.*

- void **removeTransportListener** (transport::TransportListener \*transportListener)

*Removes a registered TransportListener from the Connection's set of Transport listeners, this listener will no longer receive any Transport related events.*

- virtual void **onCommand** (const Pointer< **commands::Command** > &command)

*Event handler for the receipt of a non-response command from the transport.*

- virtual void **onException** (const decaf::lang::Exception &ex)

*Event handler for an exception from a command transport.*

- virtual void **transportInterrupted** ()  
*The transport has suffered an interruption from which it hopes to recover.*
- virtual void **transportResumed** ()  
*The transport has resumed after an interruption.*
- const **commands::ConnectionInfo** & **getConnectionInfo** () const throw ( exceptions::ActiveMQException )  
*Gets the ConnectionInfo for this Object, if the Connection is not open than this method throws an exception.*
- const **commands::ConnectionId** & **getConnectionId** () const throw ( exceptions::ActiveMQException )  
*Gets the ConnectionId for this Object, if the Connection is not open than this method throws an exception.*
- void **oneway** (Pointer< **commands::Command** > command) throw ( activemq::exceptions::ActiveMQException )  
*Sends a oneway message.*
- void **syncRequest** (Pointer< **commands::Command** > command, unsigned int timeout=0) throw ( activemq::exceptions::ActiveMQException )  
*Sends a synchronous request and returns the response from the broker.*
- virtual void **fire** (const exceptions::ActiveMQException &ex)  
*Notify the exception listener.*

### 6.21.1 Detailed Description

Concrete connection used for all connectors to the ActiveMQ broker.

### 6.21.2 Constructor & Destructor Documentation

#### 6.21.2.1 **activemq::core::ActiveMQConnection::ActiveMQConnection** (const Pointer< transport::Transport > & *transport*, const Pointer< decaf::util::Properties > & *properties*)

Constructor.

**Parameters:**

*transport* The Transport requested for this connection to the Broker.

*properties* The Properties that were defined for this connection

**6.21.2.2** `virtual activemq::core::ActiveMQConnection::~~ActiveMQConnection ()`  
[virtual]

### 6.21.3 Member Function Documentation

**6.21.3.1** `virtual void activemq::core::ActiveMQConnection::addDispatcher`  
(const Pointer< commands::ConsumerId > & *consumer*, Dispatcher \*  
*dispatcher*) throw ( cms::CMSEException ) [virtual]

Adds a dispatcher for a consumer.

#### Parameters:

*consumer* - The consumer for which to register a dispatcher.

*dispatcher* - The dispatcher to handle incoming messages for the consumer.

**6.21.3.2** `virtual void activemq::core::ActiveMQConnection::addProducer`  
(ActiveMQProducer \* *producer*) throw ( cms::CMSEException ) [virtual]

Adds an active Producer to the Set of known producers.

#### Parameters:

*producer* - The Producer to add from the the known set.

**6.21.3.3** `void activemq::core::ActiveMQConnection::addTransportListener`  
(transport::TransportListener \* *transportListener*)

Adds a transport listener so that a client can be notified of events in the underlying transport, client's are always notified after the event has been processed by the Connection class. Client's should ensure that the registered listener does not block or take a long amount of time to execute in order to not degrade performance of this Connection.

#### Parameters:

*transportListener* The TransportListener instance to add to this Connection's set of listeners to notify of Transport events.

**6.21.3.4** `virtual void activemq::core::ActiveMQConnection::close () throw (`  
`cms::CMSEException )` [virtual]

Closes this connection as well as any Sessions created from it (and those Sessions' consumers and producers).

#### Exceptions:

*CMSEException*

Implements `cms::Connection` (p. 1132).

**6.21.3.5** `virtual cms::Session* activemq::core::ActiveMQConnection::createSession (cms::Session::AcknowledgeMode ackMode) throw ( cms::CMSException ) [virtual]`

Creates a new Session to work for this Connection using the specified acknowledgment mode.

**Parameters:**

*ackMode* the Acknowledgment Mode to use.

**Exceptions:**

*CMSException*

Implements `cms::Connection` (p. 1132).

**6.21.3.6** `virtual cms::Session* activemq::core::ActiveMQConnection::createSession () throw ( cms::CMSException ) [virtual]`

Creates a new Session to work for this Connection.

**Exceptions:**

*CMSException*

Implements `cms::Connection` (p. 1133).

**6.21.3.7** `virtual void activemq::core::ActiveMQConnection::destroyDestination (const cms::Destination * destination) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalStateException, decaf::lang::exceptions::UnsupportedOperationException, activemq::exceptions::ActiveMQException ) [virtual]`

Requests that the Broker removes the given Destination. Calling this method implies that the client is finished with the Destination and that no other messages will be sent or received for the given Destination. The Broker frees all resources it has associated with this Destination.

**Parameters:**

*destination* The CMS Destination the Broker will be requested to remove.

**Exceptions:**

*NullPointerException* If the passed Destination is Null

*IllegalStateException* If the connection is closed.

*UnsupportedOperationException* If the wire format in use does not support this operation.

*ActiveMQException* If any other error occurs during the attempt to destroy the destination.

**6.21.3.8** `virtual void activemq::core::ActiveMQConnection::destroyDestination (const commands::ActiveMQDestination * destination) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalStateException, decaf::lang::exceptions::UnsupportedOperationException, activemq::exceptions::ActiveMQException ) [virtual]`

Requests that the Broker removes the given Destination. Calling this method implies that the client is finished with the Destination and that no other messages will be sent or received for the given Destination. The Broker frees all resources it has associated with this Destination.

**Parameters:**

*destination* The Destination the Broker will be requested to remove.

**Exceptions:**

*NullPointerException* If the passed Destination is Null

*IllegalStateException* If the connection is closed.

*UnsupportedOperationException* If the wire format in use does not support this operation.

*ActiveMQException* If any other error occurs during the attempt to destroy the destination.

**6.21.3.9** `virtual void activemq::core::ActiveMQConnection::fire (const exceptions::ActiveMQException & ex) [virtual]`

Notify the exception listener.

**Parameters:**

*ex* the exception to fire

**6.21.3.10** `virtual std::string activemq::core::ActiveMQConnection::getClientID () const [virtual]`

Get the Client Id for this session.

**Returns:**

string version of Client Id

Implements **cms::Connection** (p. 1133).

**6.21.3.11** `const commands::ConnectionId& activemq::core::ActiveMQConnection::getConnectionId () const throw ( exceptions::ActiveMQException )`

Gets the ConnectionId for this Object, if the Connection is not open than this method throws an exception.



**6.21.3.12** `const commands::ConnectionInfo& activemq::core::ActiveMQConnection::getConnectionInfo () const throw ( exceptions::ActiveMQException )`

Gets the ConnectionInfo for this Object, if the Connection is not open than this method throws an exception.

**6.21.3.13** `virtual cms::ExceptionListener* activemq::core::ActiveMQConnection::getExceptionListener () const [inline, virtual]`

Gets the registered Exception Listener for this connection.

**Returns:**

pointer to an exception listener or NULL

Implements **cms::Connection** (p. 1133).

**6.21.3.14** `virtual const cms::ConnectionMetaData* activemq::core::ActiveMQConnection::getMetaData () const throw ( cms::CMSException ) [inline, virtual]`

Gets the metadata for this connection.

**Returns:**

the connection MetaData pointer ( caller does not own it ).

**Exceptions:**

*CMSException* if the provider fails to get the connection metadata for this connection.

**See also:**

ConnectionMetaData

**Since:**

2.0

Implements **cms::Connection** (p. 1133).

**6.21.3.15** `bool activemq::core::ActiveMQConnection::isClosed () const [inline]`

Checks if this connection has been closed.

**Returns:**

true if the connection is closed

**6.21.3.16** `bool activemq::core::ActiveMQConnection::isStarted () const [inline]`

Check if this connection has been started.

**Returns:**

true if the start method has been called.

**6.21.3.17** `virtual void activemq::core::ActiveMQConnection::onCommand (const Pointer< commands::Command > & command) [virtual]`

Event handler for the receipt of a non-response command from the transport.

**Parameters:**

*command* the received command object.

Implements `activemq::transport::TransportListener` (p. 3289).

**6.21.3.18** `void activemq::core::ActiveMQConnection::oneway (Pointer< commands::Command > command) throw (activemq::exceptions::ActiveMQException )`

Sends a oneway message.

**Parameters:**

*command* The message to send.

**Exceptions:**

*ConnectorException* if not currently connected, or if the operation fails for any reason.

**6.21.3.19** `virtual void activemq::core::ActiveMQConnection::onException (const decaf::lang::Exception & ex) [virtual]`

Event handler for an exception from a command transport.

**Parameters:**

*ex* The exception.

Implements `activemq::transport::TransportListener` (p. 3290).

**6.21.3.20** `virtual void activemq::core::ActiveMQConnection::removeDispatcher (const Pointer< commands::ConsumerId > & consumer) throw (cms::CMSException ) [virtual]`

Removes the dispatcher for a consumer.

**Parameters:**

*consumer* - The consumer for which to remove the dispatcher.

**6.21.3.21** `virtual void activemq::core::ActiveMQConnection::removeProducer (const Pointer< commands::ProducerId > & producerId) throw ( cms::CMSException ) [virtual]`

Removes an active Producer to the Set of known producers.

**Parameters:**

*producerId* - The ProducerId to remove from the the known set.

**6.21.3.22** `virtual void activemq::core::ActiveMQConnection::removeSession (ActiveMQSession * session) throw ( cms::CMSException ) [virtual]`

Removes the session resources for the given session instance.

**Parameters:**

*session* The session to be unregistered from this connection.

**6.21.3.23** `void activemq::core::ActiveMQConnection::removeTransportListener (transport::TransportListener * transportListener)`

Removes a registered TransportListener from the Connection's set of Transport listeners, this listener will no longer receive any Transport related events. The caller is responsible for freeing the listener in all cases.

**Parameters:**

*transportListener* The pointer to the TransportListener to remove from the set of listeners.

**6.21.3.24** `virtual void activemq::core::ActiveMQConnection::sendPullRequest (const commands::ConsumerInfo * consumer, long long timeout) throw ( exceptions::ActiveMQException ) [virtual]`

If supported sends a message pull request to the service provider asking for the delivery of a new message. This is used in the case where the service provider has been configured with a zero prefetch or is only capable of delivering messages on a pull basis.

**Parameters:**

*consumer* - the ConsumerInfo for the requesting Consumer.

*timeout* - the time that the client is willing to wait.

**6.21.3.25** `virtual void activemq::core::ActiveMQConnection::setExceptionListener (cms::ExceptionListener * listener) [inline, virtual]`

Sets the registered Exception Listener for this connection.

**Parameters:**

*listener* pointer to and ExceptionListener

Implements `cms::Connection` (p. 1134).

**6.21.3.26** `virtual void activemq::core::ActiveMQConnection::start () throw (cms::CMSException ) [virtual]`

Starts or (restarts) a connections delivery of incoming messages.

**Exceptions:**

*CMSException*

Implements `cms::Startable` (p. 3014).

**6.21.3.27** `virtual void activemq::core::ActiveMQConnection::stop () throw (cms::CMSException ) [virtual]`

Stop the flow of incoming messages.

**Exceptions:**

*CMSException*

Implements `cms::Stoppable` (p. 3076).

**6.21.3.28** `void activemq::core::ActiveMQConnection::syncRequest (Pointer< commands::Command > command, unsigned int timeout = 0) throw (activemq::exceptions::ActiveMQException )`

Sends a synchronous request and returns the response from the broker. Converts any error responses into an exception.

**Parameters:**

*command* The request command.

*timeout* The time to wait for a response, default is zero or infinite.

**Exceptions:**

*ConnectorException* thrown if an error response was received from the broker, or if any other error occurred.

**6.21.3.29** `virtual void activemq::core::ActiveMQConnection::transportInterrupted () [virtual]`

The transport has suffered an interruption from which it hopes to recover.

Implements `activemq::transport::TransportListener` (p. 3290).

**6.21.3.30** `virtual void activemq::core::ActiveMQConnection::transportResumed () [virtual]`

The transport has resumed after an interruption.

Implements `activemq::transport::TransportListener` (p. 3290).

The documentation for this class was generated from the following file:

- `src/main/activemq/core/ActiveMQConnection.h`

## 6.22 activemq::core::ActiveMQConnectionFactory Class Reference

#include <src/main/activemq/core/ActiveMQConnectionFactory.h> Inheritance diagram for activemq::core::ActiveMQConnectionFactory:

### Public Member Functions

- **ActiveMQConnectionFactory** ()
- **ActiveMQConnectionFactory** (const std::string &url, const std::string &username="", const std::string &password="")  
*Constructor.*
- virtual ~**ActiveMQConnectionFactory** ()
- virtual **cms::Connection** \* **createConnection** () throw ( cms::CMSEException )  
*Creates a connection with the default user identity.*
- virtual **cms::Connection** \* **createConnection** (const std::string &username, const std::string &password) throw ( cms::CMSEException )  
*Creates a connection with the specified user identity.*
- virtual **cms::Connection** \* **createConnection** (const std::string &username, const std::string &password, const std::string &clientId) throw ( cms::CMSEException )  
*Creates a connection with the specified user identity.*
- virtual void **setUsername** (const std::string &username)  
*Sets the username that should be used when creating a new connection.*
- virtual const std::string & **getUsername** () const  
*Gets the username that this factory will use when creating a new connection instance.*
- virtual void **setPassword** (const std::string &password)  
*Sets the password that should be used when creating a new connection.*
- virtual const std::string & **getPassword** () const  
*Gets the password that this factory will use when creating a new connection instance.*
- virtual void **setBrokerURL** (const std::string &brokerURL)  
*Sets the Broker URL that should be used when creating a new connection instance.*
- virtual const std::string & **getBrokerURL** () const  
*Gets the Broker URL that this factory will use when creating a new connection instance.*

## Static Public Member Functions

- static **cms::Connection \* createConnection** (const std::string &url, const std::string &username, const std::string &password, const std::string &clientId="") throw ( cms::CMSException )

*Creates a connection with the specified user identity.*

### 6.22.1 Constructor & Destructor Documentation

**6.22.1.1** **activemq::core::ActiveMQConnectionFactory::ActiveMQConnectionFactory**  
( )

**6.22.1.2** **activemq::core::ActiveMQConnectionFactory::ActiveMQConnectionFactory**  
(const std::string & url, const std::string & username = "", const  
std::string & password = "")

Constructor.

**Parameters:**

*url* the URL of the Broker we are connecting to.

*username* to authenticate with, defaults to ""

*password* to authenticate with, defaults to ""

**6.22.1.3** **virtual**  
**activemq::core::ActiveMQConnectionFactory::~~ActiveMQConnectionFactory**  
( ) [inline, virtual]

### 6.22.2 Member Function Documentation

**6.22.2.1** **static cms::Connection\* ac-**  
**tivemq::core::ActiveMQConnectionFactory::createConnection** (const  
std::string & url, const std::string & username, const std::string &  
*password*, const std::string & *clientId* = "") throw ( cms::CMSException  
) [static]

Creates a connection with the specified user identity. The connection is created in stopped mode. No messages will be delivered until the Connection.start method is explicitly called.

**Parameters:**

*url* the URL of the Broker we are connecting to.

*username* to authenticate with

*password* to authenticate with

*clientId* to assign to connection, defaults to ""

**Exceptions:**

*CMSException.*

**6.22.2.2** `virtual cms::Connection* activemq::core::ActiveMQConnectionFactory::createConnection (const std::string & username, const std::string & password, const std::string & clientId) throw ( cms::CMSEException ) [virtual]`

Creates a connection with the specified user identity. The connection is created in stopped mode. No messages will be delivered until the Connection.start method is explicitly called. The username and password values passed here do not change the defaults, subsequent calls to the parameterless createConnection will continue to use the default values that were set in the Constructor.

**Parameters:**

*username* to authenticate with

*password* to authenticate with

*clientId* to assign to connection if "" then a random client Id is created for this connection.

**Returns:**

a Connection Pointer

**Exceptions:**

*CMSEException*

Implements `cms::ConnectionFactory` (p. 1185).

**6.22.2.3** `virtual cms::Connection* activemq::core::ActiveMQConnectionFactory::createConnection (const std::string & username, const std::string & password) throw ( cms::CMSEException ) [virtual]`

Creates a connection with the specified user identity. The connection is created in stopped mode. No messages will be delivered until the Connection.start method is explicitly called. The username and password values passed here do not change the defaults, subsequent calls to the parameterless createConnection will continue to use the default values that were set in the Constructor.

**Parameters:**

*username* to authenticate with

*password* to authenticate with

**Returns:**

a Connection Pointer

**Exceptions:**

*CMSEException*

Implements `cms::ConnectionFactory` (p. 1186).

**6.22.2.4** `virtual cms::Connection* activemq::core::ActiveMQConnectionFactory::createConnection () throw ( cms::CMSEException ) [virtual]`

Creates a connection with the default user identity. The connection is created in stopped mode. No messages will be delivered until the Connection.start method is explicitly called.



**Returns:**

a Connection Pointer

**Exceptions:**

*CMSException*

Implements **cms::ConnectionFactory** (p. 1186).

**6.22.2.5** `virtual const std::string& activemq::core::ActiveMQConnectionFactory::getBrokerURL () const [inline, virtual]`

Gets the Broker URL that this factory will use when creating a new connection instance.

**Returns:**

brokerURL string

**6.22.2.6** `virtual const std::string& activemq::core::ActiveMQConnectionFactory::getPassword () const [inline, virtual]`

Gets the password that this factory will use when creating a new connection instance.

**Returns:**

password string, "" for default credentials

**6.22.2.7** `virtual const std::string& activemq::core::ActiveMQConnectionFactory::getUsername () const [inline, virtual]`

Gets the username that this factory will use when creating a new connection instance.

**Returns:**

username string, "" for default credentials

**6.22.2.8** `virtual void activemq::core::ActiveMQConnectionFactory::setBrokerURL (const std::string & brokerURL) [inline, virtual]`

Sets the Broker URL that should be used when creating a new connection instance.

**Parameters:**

*brokerURL* string

**6.22.2.9**    `virtual void activemq::core::ActiveMQConnectionFactory::setPassword  
(const std::string & password)` [inline, virtual]

Sets the password that should be used when creating a new connection.

**Parameters:**

*password* string

**6.22.2.10**   `virtual void activemq::core::ActiveMQConnectionFactory::setUsername  
(const std::string & username)` [inline, virtual]

Sets the username that should be used when creating a new connection.

**Parameters:**

*username* string

The documentation for this class was generated from the following file:

- `src/main/activemq/core/ActiveMQConnectionFactory.h`

## 6.23 activemq::core::ActiveMQConnectionMetaData Class Reference

This class houses all the various settings and information that is used by an instance of an **ActiveMQConnection** (p. 233) class.

#include <src/main/activemq/core/ActiveMQConnectionMetaData.h> Inheritance diagram for activemq::core::ActiveMQConnectionMetaData:

### Public Member Functions

- **ActiveMQConnectionMetaData** ()
- virtual **~ActiveMQConnectionMetaData** ()
- virtual std::string **getCMSVersion** () const throw ( cms::CMSEException )  
*Gets the CMS API version.*
- virtual int **getCMSMajorVersion** () const throw ( cms::CMSEException )  
*Gets the CMS major version number.*
- virtual int **getCMSMinorVersion** () const throw ( cms::CMSEException )  
*Gets the CMS minor version number.*
- virtual std::string **getCMSProviderName** () const throw ( cms::CMSEException )  
*Gets the CMS provider name.*
- virtual std::string **getProviderVersion** () const throw ( cms::CMSEException )  
*Gets the CMS provider version.*
- virtual int **getProviderMajorVersion** () const throw ( cms::CMSEException )  
*Gets the CMS provider major version number.*
- virtual int **getProviderMinorVersion** () const throw ( cms::CMSEException )  
*Gets the CMS provider minor version number.*
- virtual std::vector< std::string > **getCMSXPropertyNames** () const throw ( cms::CMSEException )  
*Gets an Vector of the CMSX property names.*

### 6.23.1 Detailed Description

This class houses all the various settings and information that is used by an instance of an **ActiveMQConnection** (p. 233) class.

Since:

3.0

### 6.23.2 Constructor & Destructor Documentation

**6.23.2.1** `activemq::core::ActiveMQConnectionMetaData::ActiveMQConnectionMetaData()`

**6.23.2.2** `virtual activemq::core::ActiveMQConnectionMetaData::~~ActiveMQConnectionMetaData()` [virtual]

### 6.23.3 Member Function Documentation

**6.23.3.1** `virtual int activemq::core::ActiveMQConnectionMetaData::getCMSMajorVersion()`  
`const throw ( cms::CMSException )` [virtual]

Gets the CMS major version number.

**Returns:**

the CMS API major version number

**Exceptions:**

***CMSException*** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements `cms::ConnectionMetaData` (p.1238).

**6.23.3.2** `virtual int activemq::core::ActiveMQConnectionMetaData::getCMSMinorVersion()`  
`const throw ( cms::CMSException )` [virtual]

Gets the CMS minor version number.

**Returns:**

the CMS API minor version number

**Exceptions:**

***CMSException*** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements `cms::ConnectionMetaData` (p.1238).

**6.23.3.3** `virtual std::string activemq::core::ActiveMQConnectionMetaData::getCMSProviderName()`  
`const throw ( cms::CMSException )` [virtual]

Gets the CMS provider name.

**Returns:**

the CMS provider name

**Exceptions:**

**CMSException** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements **cms::ConnectionMetaData** (p.1238).

**6.23.3.4** `virtual std::string activemq::core::ActiveMQConnectionMetaData::getCMSVersion () const throw ( cms::CMSException ) [virtual]`

Gets the CMS API version.

**Returns:**

the CMS API Version in String form.

**Exceptions:**

**CMSException** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements **cms::ConnectionMetaData** (p.1239).

**6.23.3.5** `virtual std::vector<std::string> activemq::core::ActiveMQConnectionMetaData::getCMSXPropertyNames () const throw ( cms::CMSException ) [virtual]`

Gets an Vector of the CMSX property names.

**Returns:**

an Vector of CMSX property names

**Exceptions:**

**CMSException** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements **cms::ConnectionMetaData** (p.1239).

**6.23.3.6** `virtual int activemq::core::ActiveMQConnectionMetaData::getProviderMajorVersion () const throw ( cms::CMSException ) [virtual]`

Gets the CMS provider major version number.

**Returns:**

the CMS provider major version number

**Exceptions:**

**CMSException** If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements **cms::ConnectionMetaData** (p.1239).

**6.23.3.7** `virtual int activemq::core::ActiveMQConnectionMetaData::getProviderMinorVersion () const throw ( cms::CMSException ) [virtual]`

Gets the CMS provider minor version number.

**Returns:**

the CMS provider minor version number

**Exceptions:**

*CMSException* If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements `cms::ConnectionMetaData` (p.1239).

**6.23.3.8** `virtual std::string activemq::core::ActiveMQConnectionMetaData::getProviderVersion () const throw ( cms::CMSException ) [virtual]`

Gets the CMS provider version.

**Returns:**

the CMS provider version

**Exceptions:**

*CMSException* If the CMS Provider fails to retrieve the metadata due to some internal error.

Implements `cms::ConnectionMetaData` (p.1240).

The documentation for this class was generated from the following file:

- `src/main/activemq/core/ActiveMQConnectionMetaData.h`

## 6.24 activemq::core::ActiveMQConnectionSupport Class Reference

#include <src/main/activemq/core/ActiveMQConnectionSupport.h> Inheritance diagram for activemq::core::ActiveMQConnectionSupport:

### Public Member Functions

- **ActiveMQConnectionSupport** (const **Pointer**< **transport::Transport** > &transport, const **Pointer**< **decaf::util::Properties** > &properties)  
*Creates an instance of the **ActiveMQConnectionSupport** (p. 253) class, the most common properties for a connection are pulled from the properties instance or are set to defaults.*
- virtual ~**ActiveMQConnectionSupport** ()
- virtual void **startupTransport** () throw ( decaf::lang::Exception )  
*Starts the Transport, this should initiate the connection between this client and the Transports endpoint.*
- virtual void **shutdownTransport** () throw ( decaf::lang::Exception )  
*Closes this object and deallocates the appropriate resources.*
- const **decaf::util::Properties** & **getProperties** () const  
*Gets the Properties object that this Config object was initialized with.*
- **transport::Transport** & **getTransport** () const  
*Gets the Transport Configured for this Connection.*
- bool **isAlwaysSyncSend** () const  
*Gets if the Connection should always send things Synchronously.*
- void **setAlwaysSyncSend** (bool value)  
*Sets if the Connection should always send things Synchronously.*
- bool **isUseAsyncSend** () const  
*Gets if the useAsyncSend option is set.*
- void **setUseAsyncSend** (bool value)  
*Sets the useAsyncSend option.*
- unsigned int **getSendTimeout** () const  
*Gets the assigned send timeout for this Connector.*
- void **setSendTimeout** (unsigned int timeout)  
*Sets the send timeout to use when sending Message objects, this will cause all messages to be sent using a Synchronous request is non-zero.*
- unsigned int **getCloseTimeout** () const  
*Gets the assigned close timeout for this Connector.*

- void **setCloseTimeout** (unsigned int timeout)  
*Sets the close timeout to use when sending the disconnect request.*
- unsigned int **getProducerWindowSize** () const  
*Gets the configured producer window size for Producers that are created from this connector.*
- void **setProducerWindowSize** (unsigned int windowSize)  
*Sets the size in Bytes of messages that a producer can send before it is blocked to await a ProducerAck from the broker that frees enough memory to allow another message to be sent.*
- std::string **getUsername** () const  
*Gets the Configured Username.*
- void **setUsername** (const std::string &username)  
*Sets the Username.*
- std::string **getPassword** () const  
*Gets the Configured Password.*
- void **setPassword** (const std::string &password)  
*Sets the Password.*
- std::string **getClientId** () const  
*Gets the Configured Client Id.*
- void **setClientId** (const std::string &clientId)  
*Sets the Client Id.*
- long long **getNextSessionId** ()  
*Get the Next available Session Id.*
- long long **getNextTempDestinationId** ()  
*Get the Next Temporary Destination Id.*
- long long **getNextLocalTransactionId** ()  
*Get the Next Temporary Destination Id.*

## 6.24.1 Constructor & Destructor Documentation

### 6.24.1.1 **activemq::core::ActiveMQConnectionSupport::ActiveMQConnectionSupport** (const Pointer< transport::Transport > & *transport*, const Pointer< decaf::util::Properties > & *properties*)

Creates an instance of the **ActiveMQConnectionSupport** (p. 253) class, the most common properties for a connection are pulled from the properties instance or are set to defaults.

#### Parameters:

- transport*** The Transport that this Connection will use for sending Commands to the Broker.
- properties*** The URI configured properties for this connection.



**6.24.1.2** `virtual  
activemq::core::ActiveMQConnectionSupport::~~ActiveMQConnectionSupport  
( ) [virtual]`

## 6.24.2 Member Function Documentation

**6.24.2.1** `std::string activemq::core::ActiveMQConnectionSupport::getClientId ( )  
const [inline]`

Gets the Configured Client Id.

**Returns:**

the clientId.

**6.24.2.2** `unsigned int ac-  
tivemq::core::ActiveMQConnectionSupport::getCloseTimeout ( ) const  
[inline]`

Gets the assigned close timeout for this Connector.

**Returns:**

the close timeout configured in the connection uri

**6.24.2.3** `long long ac-  
tivemq::core::ActiveMQConnectionSupport::getNextLocalTransactionId ( )  
[inline]`

Get the Next Temporary Destination Id.

**Returns:**

the next id in the sequence.

**6.24.2.4** `long long activemq::core::ActiveMQConnectionSupport::getNextSessionId  
( ) [inline]`

Get the Next available Session Id.

**Returns:**

the next id in the sequence.

**6.24.2.5** `long long ac-  
tivemq::core::ActiveMQConnectionSupport::getNextTempDestinationId ( )  
[inline]`

Get the Next Temporary Destination Id.

**Returns:**

the next id in the sequence.

**6.24.2.6** `std::string activemq::core::ActiveMQConnectionSupport::getPassword ()`  
`const [inline]`

Gets the Configured Password.

**Returns:**

the password.

**6.24.2.7** `unsigned int activemq::core::ActiveMQConnectionSupport::getProducerWindowSize ()`  
`const [inline]`

Gets the configured producer window size for Producers that are created from this connector. This only applies if there is no send timeout and the producer is able to send asynchronously.

**Returns:**

size in bytes of messages that this producer can produce before it must block and wait for ProducerAck messages to free resources.

**6.24.2.8** `const decaf::util::Properties& activemq::core::ActiveMQConnectionSupport::getProperties ()`  
`const [inline]`

Gets the Properties object that this Config object was initialized with.

**Returns:**

a const reference to the Connection Config.

References `decaf::lang::Pointer< T, REFCOUNTER >::get()`.

**6.24.2.9** `unsigned int activemq::core::ActiveMQConnectionSupport::getSendTimeout ()`  
`const [inline]`

Gets the assigned send timeout for this Connector.

**Returns:**

the send timeout configured in the connection uri

**6.24.2.10** `transport::Transport& activemq::core::ActiveMQConnectionSupport::getTransport ()`  
`const [inline]`

Gets the Transport Configured for this Connection.

**Returns:**

the configured transport

References `decaf::lang::Pointer< T, REFCOUNTER >::get()`.

**6.24.2.11** `std::string activemq::core::ActiveMQConnectionSupport::getUsername ()`  
`const [inline]`

Gets the Configured Username.

**Returns:**

the username.

**6.24.2.12** `bool activemq::core::ActiveMQConnectionSupport::isAlwaysSyncSend ()`  
`const [inline]`

Gets if the Connection should always send things Synchronously.

**Returns:**

true if sends should always be Synchronous.

**6.24.2.13** `bool activemq::core::ActiveMQConnectionSupport::isUseAsyncSend ()`  
`const [inline]`

Gets if the useAsyncSend option is set.

**Returns:**

true if on false if not.

**6.24.2.14** `void activemq::core::ActiveMQConnectionSupport::setAlwaysSyncSend`  
`(bool value) [inline]`

Sets if the Connection should always send things Synchronously.

**Parameters:**

*value* true if sends should always be Synchronous.

**6.24.2.15** `void activemq::core::ActiveMQConnectionSupport::setClientId (const`  
`std::string & clientId) [inline]`

Sets the Client Id.

**Parameters:**

*clientId* - The new clientId value.

**6.24.2.16** `void activemq::core::ActiveMQConnectionSupport::setCloseTimeout`  
`(unsigned int timeout) [inline]`

Sets the close timeout to use when sending the disconnect request.

**Parameters:**

*timeout* - The time to wait for a close message.

**6.24.2.17** `void activemq::core::ActiveMQConnectionSupport::setPassword (const std::string & password) [inline]`

Sets the Password.

**Parameters:**

*password* - The new password value.

**6.24.2.18** `void activemq::core::ActiveMQConnectionSupport::setProducerWindowSize (unsigned int windowSize) [inline]`

Sets the size in Bytes of messages that a producer can send before it is blocked to await a ProducerAck from the broker that frees enough memory to allow another message to be sent.

**Parameters:**

*windowSize* - The size in bytes of the Producers memory window.

**6.24.2.19** `void activemq::core::ActiveMQConnectionSupport::setSendTimeout (unsigned int timeout) [inline]`

Sets the send timeout to use when sending Message objects, this will cause all messages to be sent using a Synchronous request is non-zero.

**Parameters:**

*timeout* - The time to wait for a response.

**6.24.2.20** `void activemq::core::ActiveMQConnectionSupport::setUseAsyncSend (bool value) [inline]`

Sets the useAsyncSend option.

**Parameters:**

*value* - true to activate, false to disable.

**6.24.2.21** `void activemq::core::ActiveMQConnectionSupport::setUsername (const std::string & username) [inline]`

Sets the Username.

**Parameters:**

*username* - The new username value.

**6.24.2.22** virtual void activemq::core::ActiveMQConnectionSupport::shutdownTransport () throw ( decaf::lang::Exception ) [virtual]

Closes this object and deallocates the appropriate resources. The object is generally no longer usable after calling close.

**Exceptions:**

*Exception*

**6.24.2.23** virtual void activemq::core::ActiveMQConnectionSupport::startupTransport () throw ( decaf::lang::Exception ) [virtual]

Starts the Transport, this should initiate the connection between this client and the Transports endpoint.

**Exceptions:**

*Exception*

The documentation for this class was generated from the following file:

- src/main/activemq/core/ActiveMQConnectionSupport.h

## 6.25 activemq::core::ActiveMQConstants Class Reference

Class holding constant values for various ActiveMQ specific things Each constant is defined as an enumeration and has functions that convert back and forth between string and enum values.

```
#include <src/main/activemq/core/ActiveMQConstants.h>
```

### Data Structures

- class `StaticInitializer`

### Public Types

- enum `TransactionState` {  
`TRANSACTION_STATE_BEGIN` = 0, `TRANSACTION_STATE_PREPARE` = 1, `TRANSACTION_STATE_COMMITONEPHASE` = 2, `TRANSACTION_STATE_COMMITTWOPHASE` = 3,  
`TRANSACTION_STATE_ROLLBACK` = 4, `TRANSACTION_STATE_RECOVER` = 5, `TRANSACTION_STATE_FORGET` = 6, `TRANSACTION_STATE_END` = 7 }
  - enum `DestinationActions` { `DESTINATION_ADD_OPERATION` = 0, `DESTINATION_REMOVE_OPERATION` = 1 }
  - enum `AckType` {  
`ACK_TYPE_DELIVERED` = 0, `ACK_TYPE_POISON` = 1, `ACK_TYPE_CONSUMED` = 2, `ACK_TYPE_REDELIVERED` = 3,  
`ACK_TYPE_INDIVIDUAL` = 4 }
  - enum `DestinationOption` {  
`CONSUMER_PREFETCHSIZE`, `CONSUMER_MAXPENDINGMSGLIMIT`, `CONSUMER_NOLOCAL`, `CONSUMER_DISPATCHASYNC`,  
`CONSUMER_RETROACTIVE`, `CONSUMER_SELECTOR`, `CONSUMER_EXCLUSIVE`, `CONSUMER_PRIORITY`,  
`NUM_OPTIONS` }
- These values represent the options that can be appended to an Destination name, i.e.*
- enum `URIParam` {  
`CONNECTION_SENDTIMEOUT`, `CONNECTION_PRODUCERWINDOWSIZE`, `CONNECTION_CLOSETIMEOUT`,  
`CONNECTION_ALWAYSSENDCONNECTION_USEASYNCSEND`, `PARAM_USERNAME`, `PARAM_PASSWORD`, `PARAM_CLIENTID`,  
`NUM_PARAMS` }
- These values represent the parameters that can be added to the connection URI that affect the ActiveMQ Core API.*

## Static Public Member Functions

- static const std::string & **toString** (const **DestinationOption** option)
- static **DestinationOption** **toDestinationOption** (const std::string &option)
- static const std::string & **toString** (const **URIParam** option)
- static **URIParam** **toURIOption** (const std::string &option)

### 6.25.1 Detailed Description

Class holding constant values for various ActiveMQ specific things Each constant is defined as an enumeration and has functions that convert back and forth between string and enum values.

### 6.25.2 Member Enumeration Documentation

#### 6.25.2.1 enum activemq::core::ActiveMQConstants::AckType

Enumerator:

```
ACK_TYPE_DELIVERED  
ACK_TYPE_POISON  
ACK_TYPE_CONSUMED  
ACK_TYPE_REDELIVERED  
ACK_TYPE_INDIVIDUAL
```

#### 6.25.2.2 enum activemq::core::ActiveMQConstants::DestinationActions

Enumerator:

```
DESTINATION_ADD_OPERATION  
DESTINATION_REMOVE_OPERATION
```

#### 6.25.2.3 enum activemq::core::ActiveMQConstants::DestinationOption

These values represent the options that can be appended to an Destination name, i.e. /topic/-foo?consumer.exclusive=true

Enumerator:

```
CONSUMER_PREFETCHSIZE  
CUNSUMER_MAXPENDINGMSGLIMIT  
CONSUMER_NOLOCAL  
CONSUMER_DISPATCHASYNC  
CONSUMER_RETROACTIVE  
CONSUMER_SELECTOR  
CONSUMER_EXCLUSIVE  
CONSUMER_PRIORITY  
NUM_OPTIONS
```

#### 6.25.2.4 enum activemq::core::ActiveMQConstants::TransactionState

Enumerator:

```
TRANSACTION_STATE_BEGIN
TRANSACTION_STATE_PREPARE
TRANSACTION_STATE_COMMITONEPHASE
TRANSACTION_STATE_COMMITTWOPHASE
TRANSACTION_STATE_ROLLBACK
TRANSACTION_STATE_RECOVER
TRANSACTION_STATE_FORGET
TRANSACTION_STATE_END
```

#### 6.25.2.5 enum activemq::core::ActiveMQConstants::URIParam

These values represent the parameters that can be added to the connection URI that affect the ActiveMQ Core API.

Enumerator:

```
CONNECTION_SENDTIMEOUT
CONNECTION_PRODUCERWINDOWSIZE
CONNECTION_CLOSETIMEOUT
CONNECTION_ALWAYS_SYNC_SEND
CONNECTION_USE_ASYNC_SEND
PARAM_USERNAME
PARAM_PASSWORD
PARAM_CLIENTID
NUM_PARAMS
```

### 6.25.3 Member Function Documentation

- 6.25.3.1 static DestinationOption activemq::core::ActiveMQConstants::toDestinationOption (const std::string & *option*) [inline, static]
- 6.25.3.2 static const std::string& activemq::core::ActiveMQConstants::toString (const URIParam *option*) [inline, static]
- 6.25.3.3 static const std::string& activemq::core::ActiveMQConstants::toString (const DestinationOption *option*) [inline, static]
- 6.25.3.4 static URIParam activemq::core::ActiveMQConstants::toURIOption (const std::string & *option*) [inline, static]

The documentation for this class was generated from the following file:

- src/main/activemq/core/ActiveMQConstants.h



## 6.26 activemq::core::ActiveMQConsumer Class Reference

#include <src/main/activemq/core/ActiveMQConsumer.h> Inheritance diagram for activemq::core::ActiveMQConsumer:

### Public Member Functions

- **ActiveMQConsumer** (const **Pointer**< **commands::ConsumerInfo** > &consumerInfo, **ActiveMQSession** \*session, const **Pointer**< **ActiveMQTransactionContext** > &transaction)  
*Constructor.*
- virtual ~**ActiveMQConsumer** ()
- virtual void **start** ()  
*Starts the Consumer if not already started and not closed.*
- virtual void **stop** ()  
*Stops a Consumer, the Consumer will not deliver any messages that are dispatched to it until it is started again.*
- virtual void **close** () throw ( cms::CMSException )  
*Closes the Consumer.*
- virtual **cms::Message** \* **receive** () throw ( cms::CMSException )  
*Synchronously Receive a Message.*
- virtual **cms::Message** \* **receive** (int millisecs) throw ( cms::CMSException )  
*Synchronously Receive a Message, time out after defined interval.*
- virtual **cms::Message** \* **receiveNoWait** () throw ( cms::CMSException )  
*Receive a Message, does not wait if there isn't a new message to read, returns NULL if nothing read.*
- virtual void **setMessageListener** ( **cms::MessageListener** \*listener) throw ( cms::CMSException )  
*Sets the MessageListener that this class will send notifys on.*
- virtual **cms::MessageListener** \* **getMessageListener** () const throw ( cms::CMSException )  
*Gets the MessageListener that this class will send events to.*
- virtual std::string **getMessageSelector** () const throw ( cms::CMSException )  
*Gets this message consumer's message selector expression.*
- virtual void **acknowledge** (const **Pointer**< **commands::MessageDispatch** > &dispatch) throw ( cms::CMSException )  
*Method called to acknowledge the message passed, called from a message when the mode is client ack.*

- virtual void **dispatch** (const **Pointer**< **MessageDispatch** > &message)  
*Called asynchronously by the session to dispatch a message.*
- void **acknowledge** () throw ( cms::CMSEException )  
*Method called to acknowledge all messages that have been received so far.*
- void **commit** () throw ( exceptions::ActiveMQException )  
*Called to Commit the current set of messages in this Transaction.*
- void **rollback** () throw ( exceptions::ActiveMQException )  
*Called to Roll back the current set of messages in this Transaction.*
- void **doClose** () throw ( exceptions::ActiveMQException )  
*Performs the actual close operation on this consumer.*
- const **commands::ConsumerInfo** & **getConsumerInfo** () const  
*Get the Consumer information for this consumer.*
- const **commands::ConsumerId** & **getConsumerId** () const  
*Get the Consumer Id for this consumer.*
- bool **isClosed** () const
- bool **isSynchronizationRegistered** () const  
*Has this Consumer Transaction **Synchronization** (p. 3137) been added to the transaction.*
- void **setSynchronizationRegistered** (bool value)  
*Sets the **Synchronization** (p. 3137) Registered state of this consumer.*
- bool **iterate** ()  
*Deliver any pending messages to the registered MessageListener if there is one, return true if not all dispatched, or false if no listener or all pending messages have been dispatched.*
- void **deliverAcks** () throw ( exceptions::ActiveMQException )  
*Forces this consumer to send all pending acks to the broker.*
- void **clearMessagesInProgress** ()  
*Called on a Failover to clear any pending messages.*
- long long **getLastDeliveredSequenceId** () const  
*Gets the currently set Last Delivered Sequence Id.*
- void **setLastDeliveredSequenceId** (long long value)  
*Sets the value of the Last Delivered Sequence Id.*

## Protected Member Functions

- **Pointer< MessageDispatch > dequeue** (long long timeout) throw ( cms::CMSException )

*Used by synchronous receive methods to wait for messages to come in.*

- **void beforeMessageIsConsumed** (const Pointer< commands::MessageDispatch > &dispatch)

*Pre-consume processing.*

- **void afterMessageIsConsumed** (const Pointer< commands::MessageDispatch > &dispatch, bool messageExpired)

*Post-consume processing.*

### 6.26.1 Constructor & Destructor Documentation

- 6.26.1.1** **activemq::core::ActiveMQConsumer::ActiveMQConsumer** (const Pointer< commands::ConsumerInfo > & *consumerInfo*, ActiveMQSession \* *session*, const Pointer< ActiveMQTransactionContext > & *transaction*)

Constructor.

- 6.26.1.2** **virtual activemq::core::ActiveMQConsumer::~~ActiveMQConsumer** ()  
[virtual]

### 6.26.2 Member Function Documentation

- 6.26.2.1** **void activemq::core::ActiveMQConsumer::acknowledge** () throw ( cms::CMSException )

Method called to acknowledge all messages that have been received so far.

**Exceptions:**

*CMSException*

- 6.26.2.2** **virtual void activemq::core::ActiveMQConsumer::acknowledge** (const Pointer< commands::MessageDispatch > & *dispatch*) throw ( cms::CMSException ) [virtual]

Method called to acknowledge the message passed, called from a message when the mode is client ack.

**Parameters:**

*message* the Message to Acknowledge

**Exceptions:**

*CMSException*

**6.26.2.3** `void activemq::core::ActiveMQConsumer::afterMessageIsConsumed (const Pointer< commands::MessageDispatch > & dispatch, bool messageExpired)` [protected]

Post-consume processing.

**Parameters:**

*dispatch* - the consumed message

*messageExpired* - flag indicating if the message has expired.

**6.26.2.4** `void activemq::core::ActiveMQConsumer::beforeMessageIsConsumed (const Pointer< commands::MessageDispatch > & dispatch)` [protected]

Pre-consume processing.

**Parameters:**

*dispatch* - the message being consumed.

**6.26.2.5** `void activemq::core::ActiveMQConsumer::clearMessagesInProgress ()`

Called on a Failover to clear any pending messages.

**6.26.2.6** `virtual void activemq::core::ActiveMQConsumer::close () throw ( cms::CMSException )` [virtual]

Closes the Consumer. This will return all allocated resources and purge any outstanding messages. This method will block if there is a call to receive in progress, or a dispatch to a MessageListener in place

**Exceptions:**

*CMSException*

Implements `cms::Closeable` (p.1021).

**6.26.2.7** `void activemq::core::ActiveMQConsumer::commit () throw ( exceptions::ActiveMQException )`

Called to Commit the current set of messages in this Transaction.

**Exceptions:**

*ActiveMQException*

**6.26.2.8** `void activemq::core::ActiveMQConsumer::deliverAcks () throw ( exceptions::ActiveMQException )`

Forces this consumer to send all pending acks to the broker.

**6.26.2.9** `Pointer<MessageDispatch> activemq::core::ActiveMQConsumer::dequeue (long long timeout) throw ( cms::CMSException ) [protected]`

Used by synchronous receive methods to wait for messages to come in.

**Parameters:**

*timeout* - The maximum number of milliseconds to wait before returning. If -1, it will block until a messages is received or this consumer is closed. If 0, will not block at all. If > 0, will wait at a maximum the specified number of milliseconds before returning.

**Returns:**

the message, if received within the allotted time. Otherwise NULL.

**Exceptions:**

*InvalidStateException* if this consumer is closed upon entering this method.

**6.26.2.10** `virtual void activemq::core::ActiveMQConsumer::dispatch (const Pointer< MessageDispatch > & message) [virtual]`

Called asynchronously by the session to dispatch a message.

**Parameters:**

*message* dispatch object pointer

Implements `activemq::core::Dispatcher` (p. 1536).

**6.26.2.11** `void activemq::core::ActiveMQConsumer::doClose () throw ( exceptions::ActiveMQException )`

Performs the actual close operation on this consumer.

**Exceptions:**

*ActiveMQException*

**6.26.2.12** `const commands::ConsumerId& activemq::core::ActiveMQConsumer::getConsumerId () const [inline]`

Get the Consumer Id for this consumer.

**Returns:**

Reference to a Consumer Id Object

**6.26.2.13** `const commands::ConsumerInfo& activemq::core::ActiveMQConsumer::getConsumerInfo () const [inline]`

Get the Consumer information for this consumer.

**Returns:**

Reference to a Consumer Info Object

**6.26.2.14** `long long activemq::core::ActiveMQConsumer::getLastDeliveredSequenceId () const [inline]`

Gets the currently set Last Delivered Sequence Id.

**Returns:**

long long containing the sequence id of the last delivered Message.

**6.26.2.15** `virtual cms::MessageListener* activemq::core::ActiveMQConsumer::getMessageListener () const throw ( cms::CMSException ) [inline, virtual]`

Gets the MessageListener that this class will send events to.

**Returns:**

the currently registered MessageListener interface pointer.

Implements `cms::MessageConsumer` (p. 2215).

**6.26.2.16** `virtual std::string activemq::core::ActiveMQConsumer::getMessageSelector () const throw ( cms::CMSException ) [virtual]`

Gets this message consumer's message selector expression.

**Returns:**

This Consumer's selector expression or "".

**Exceptions:**

*cms::CMSException* (p. 1031)

Implements `cms::MessageConsumer` (p. 2215).

**6.26.2.17** `bool activemq::core::ActiveMQConsumer::isClosed () const [inline]`

**Returns:**

if this Consumer has been closed.

**6.26.2.18** `bool activemq::core::ActiveMQConsumer::isSynchronizationRegistered ()`  
`const [inline]`

Has this Consumer Transaction **Synchronization** (p. 3137) been added to the transaction.

**Returns:**

true if the synchronization has been added.

**6.26.2.19** `bool activemq::core::ActiveMQConsumer::iterate ()`

Deliver any pending messages to the registered MessageListener if there is one, return true if not all dispatched, or false if no listener or all pending messages have been dispatched.

**6.26.2.20** `virtual cms::Message* activemq::core::ActiveMQConsumer::receive (int`  
`milliseconds) throw ( cms::CMSException ) [virtual]`

Synchronously Receive a Message, time out after defined interval. Returns null if nothing read.

**Parameters:**

*milliseconds* the time in milliseconds to wait before returning

**Returns:**

new message or null on timeout

**Exceptions:**

*CMSException*

Implements `cms::MessageConsumer` (p. 2215).

**6.26.2.21** `virtual cms::Message* activemq::core::ActiveMQConsumer::receive ()`  
`throw ( cms::CMSException ) [virtual]`

Synchronously Receive a Message.

**Returns:**

new message

**Exceptions:**

*CMSException*

Implements `cms::MessageConsumer` (p. 2216).

**6.26.2.22** `virtual cms::Message* ac-`  
`tivemq::core::ActiveMQConsumer::receiveNoWait ()`  
`throw ( cms::CMSException ) [virtual]`

Receive a Message, does not wait if there isn't a new message to read, returns NULL if nothing read.

**Returns:**

new message

**Exceptions:**

*CMSEException*

Implements **cms::MessageConsumer** (p. 2216).

**6.26.2.23** `void activemq::core::ActiveMQConsumer::rollback () throw ( exceptions::ActiveMQException )`

Called to Roll back the current set of messages in this Transaction.

**Exceptions:**

*ActiveMQException*

**6.26.2.24** `void activemq::core::ActiveMQConsumer::setLastDeliveredSequenceId (long long value) [inline]`

Sets the value of the Last Delivered Sequence Id.

**Parameters:**

*value* The new value to assign to the Last Delivered Sequence Id property.

**6.26.2.25** `virtual void activemq::core::ActiveMQConsumer::setMessageListener (cms::MessageListener * listener) throw ( cms::CMSEException ) [virtual]`

Sets the MessageListener that this class will send notifs on.

**Parameters:**

*listener* MessageListener interface pointer

Implements **cms::MessageConsumer** (p. 2216).

**6.26.2.26** `void activemq::core::ActiveMQConsumer::setSynchronizationRegistered (bool value) [inline]`

Sets the **Synchronization** (p. 3137) Registered state of this consumer.

**Parameters:**

*value* - true if registered false otherwise.

**6.26.2.27** `virtual void activemq::core::ActiveMQConsumer::start () [virtual]`

Starts the Consumer if not already started and not closed. A consumer will no deliver messages until started.



**6.26.2.28 virtual void activemq::core::ActiveMQConsumer::stop () [virtual]**

Stops a Consumer, the Consumer will not deliver any messages that are dispatched to it until it is started again. A Closed Consumer is also a stopped consumer.

The documentation for this class was generated from the following file:

- `src/main/activemq/core/ActiveMQConsumer.h`

## 6.27 activemq::library::ActiveMQCPP Class Reference

```
#include <src/main/activemq/library/ActiveMQCPP.h>
```

### Public Member Functions

- virtual `~ActiveMQCPP ()`

### Static Public Member Functions

- static void `initializeLibrary ()`  
*Initialize the ActiveMQ-CPP Library constructs, this method will init all the internal Registry objects and initialize the Decaf library.*
- static void `initializeLibrary (int argc, char **argv)`  
*Initialize the ActiveMQ-CPP Library constructs, this method will initialize all the internal Registry objects and initialize the Decaf library.*
- static void `shutdownLibrary ()`  
*Shutdown the ActiveMQ-CPP Library, freeing any resources that could not be freed up to this point.*

### Protected Member Functions

- `ActiveMQCPP ()`
- `ActiveMQCPP (const ActiveMQCPP &)`
- `ActiveMQCPP & operator= (const ActiveMQCPP &)`

### 6.27.1 Constructor & Destructor Documentation

**6.27.1.1** `activemq::library::ActiveMQCPP::ActiveMQCPP () [inline, protected]`

**6.27.1.2** `activemq::library::ActiveMQCPP::ActiveMQCPP (const ActiveMQCPP &) [protected]`

**6.27.1.3** `virtual activemq::library::ActiveMQCPP::~~ActiveMQCPP () [inline, virtual]`

### 6.27.2 Member Function Documentation

**6.27.2.1** `static void activemq::library::ActiveMQCPP::initializeLibrary (int argc, char ** argv) [static]`

Initialize the ActiveMQ-CPP Library constructs, this method will initialize all the internal Registry objects and initialize the Decaf library. This method takes the args passed to the main method of process for use is setting system properties and configuring the ActiveMQ-CPP Library.

#### Parameters:

*argc* - the count of arguments passed to this Process.

*argv* - the array of string arguments passed to this process.

**Exceptions:**

*runtime\_error* if an error occurs while initializing this library.

**6.27.2.2 static void activemq::library::ActiveMQCPP::initializeLibrary () [static]**

Initialize the ActiveMQ-CPP Library constructs, this method will init all the internal Registry objects and initialize the Decaf library.

**Exceptions:**

*runtime\_error* if an error occurs while initializing this library.

**6.27.2.3 ActiveMQCPP& activemq::library::ActiveMQCPP::operator= (const ActiveMQCPP &) [protected]**

**6.27.2.4 static void activemq::library::ActiveMQCPP::shutdownLibrary () [static]**

Shutdown the ActiveMQ-CPP Library, freeing any resources that could not be freed up to this point. All the user created ActiveMQ-CPP objects and Decaf Library objects should have been destroyed by the time this method is called.

The documentation for this class was generated from the following file:

- src/main/activemq/library/**ActiveMQCPP.h**

## 6.28 activemq::commands::ActiveMQDestination Class Reference

#include <src/main/activemq/commands/ActiveMQDestination.h> Inheritance diagram for activemq::commands::ActiveMQDestination:

### Data Structures

- struct **DestinationFilter**

### Public Member Functions

- **ActiveMQDestination** ()
- **ActiveMQDestination** (const std::string &**physicalName**)
- virtual ~**ActiveMQDestination** ()
- virtual **ActiveMQDestination** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual const std::string & **getPhysicalName** () const  
*Fetch this destination's physical name.*
- virtual std::string & **getPhysicalName** ()
- virtual void **setPhysicalName** (const std::string &**physicalName**)  
*Set this destination's physical name.*
- virtual bool **isAdvisory** () const
- virtual void **setAdvisory** (bool **advisory**)
- virtual bool **isConsumerAdvisory** () const
- virtual bool **isProducerAdvisory** () const
- virtual bool **isConnectionAdvisory** () const
- virtual bool **isExclusive** () const
- virtual void **setExclusive** (bool **exclusive**)
- virtual bool **isOrdered** () const

- virtual void **setOrdered** (bool **ordered**)
- virtual std::string **getOrderedTarget** () const
- virtual void **setOrderedTarget** (const std::string &**orderedTarget**)
- virtual **cms::Destination::DestinationType** **getDestinationType** () const =0  
*Returns the Type of Destination that this object represents.*
- virtual bool **isTemporary** () const  
*Returns true if a temporary Destination.*
- virtual bool **isTopic** () const  
*Returns true if a Topic Destination.*
- virtual bool **isQueue** () const  
*Returns true if a Queue Destination.*
- virtual bool **isComposite** () const  
*Returns true if this destination represents a collection of destinations; allowing a set of destinations to be published to or subscribed from in one CMS operation.*
- virtual bool **isWildcard** () const
- const **activemq::util::ActiveMQProperties** & **getOptions** () const
- virtual const **cms::Destination** \* **getCMSDestination** () const

## Static Public Member Functions

- static std::string **createTemporaryName** (const std::string &clientId)  
*Create a temporary name from the clientId.*
- static std::string **getClientId** (const **ActiveMQDestination** \*destination)  
*From a temporary destination find the clientId of the Connection that created it.*
- static **Pointer< ActiveMQDestination >** **createDestination** (int type, const std::string &name)  
*Creates a Destination given the String Name to use and a Type.*

## Static Public Attributes

- static const unsigned char **ID \_ACTIVEMQDESTINATION** = 0

## Protected Attributes

- bool **exclusive**
- bool **ordered**
- bool **advisory**
- std::string **orderedTarget**
- std::string **physicalName**
- **util::ActiveMQProperties** **options**

## Static Protected Attributes

- static const std::string **ADVISORY\_PREFIX**  
*prefix for Advisory message destinations*
- static const std::string **CONSUMER\_ADVISORY\_PREFIX**  
*prefix for consumer advisory destinations*
- static const std::string **PRODUCER\_ADVISORY\_PREFIX**  
*prefix for producer advisory destinations*
- static const std::string **CONNECTION\_ADVISORY\_PREFIX**  
*prefix for connection advisory destinations*
- static const std::string **DEFAULT\_ORDERED\_TARGET**  
*The default target for ordered destinations.*
- static const std::string **TEMP\_PREFIX**
- static const std::string **TEMP\_POSTFIX**
- static const std::string **COMPOSITE\_SEPARATOR**
- static const std::string **QUEUE\_QUALIFIED\_PREFIX**
- static const std::string **TOPIC\_QUALIFIED\_PREFIX**
- static const std::string **TEMP\_QUEUE\_QUALIFIED\_PREFIX**
- static const std::string **TEMP\_TOPIC\_QUALIFIED\_PREFIX**

## 6.28.1 Constructor & Destructor Documentation

**6.28.1.1** `activemq::commands::ActiveMQDestination::ActiveMQDestination ()`

**6.28.1.2** `activemq::commands::ActiveMQDestination::ActiveMQDestination (const std::string & physicalName)`

**6.28.1.3** `virtual  
activemq::commands::ActiveMQDestination::~~ActiveMQDestination ()  
[inline, virtual]`

## 6.28.2 Member Function Documentation

**6.28.2.1** `virtual ActiveMQDestination* ac-  
tivemq::commands::ActiveMQDestination::cloneDataStructure () const  
[inline, virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

Reimplemented in `activemq::commands::ActiveMQQueue` (p. 420),  
`activemq::commands::ActiveMQTempDestination` (p. 500), **ac-**  
`tivemq::commands::ActiveMQTempQueue` (p. 524), **ac-**  
`tivemq::commands::ActiveMQTempTopic` (p. 549), and **ac-**  
`tivemq::commands::ActiveMQTopic` (p. 599).

#### 6.28.2.2 virtual void `activemq::commands::ActiveMQDestination::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

##### Returns:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

Reimplemented in `activemq::commands::ActiveMQQueue` (p. 420),  
`activemq::commands::ActiveMQTempDestination` (p. 500), **ac-**  
`tivemq::commands::ActiveMQTempQueue` (p. 525), **ac-**  
`tivemq::commands::ActiveMQTempTopic` (p. 550), and **ac-**  
`tivemq::commands::ActiveMQTopic` (p. 599).

Referenced by `activemq::commands::ActiveMQTempDestination::copyDataStructure()`.

#### 6.28.2.3 static `Pointer<ActiveMQDestination> activemq::commands::ActiveMQDestination::createDestination (int type, const std::string & name)` [static]

Creates a Destination given the String Name to use and a Type.

##### Parameters:

*type* - The Type of Destination to Create

*name* - The Name to use in the creation of the Destination

##### Returns:

Pointer to a new `ActiveMQDestination` (p. 274) instance.

#### 6.28.2.4 static `std::string activemq::commands::ActiveMQDestination::createTemporaryName (const std::string & clientId)` [inline, static]

Create a temporary name from the *clientId*.

##### Parameters:

*clientId*

##### Returns:

#### 6.28.2.5 `virtual bool activemq::commands::ActiveMQDestination::equals (const DataStructure * value) const [virtual]`

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

##### Returns:

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

Reimplemented in **activemq::commands::ActiveMQQueue** (p. 421),  
**activemq::commands::ActiveMQTempDestination** (p. 501), **ac-**  
**tivemq::commands::ActiveMQTempQueue** (p. 525), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 550), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 600).

Referenced by **activemq::commands::ActiveMQTopic::equals()**, and **ac-**  
**tivemq::commands::ActiveMQTempDestination::equals()**.

#### 6.28.2.6 `static std::string activemq::commands::ActiveMQDestination::getClientId (const ActiveMQDestination * destination) [static]`

From a temporary destination find the clientId of the Connection that created it.

##### Parameters:

*destination*

##### Returns:

the clientId or null if not a temporary destination

#### 6.28.2.7 `virtual const cms::Destination* activemq::commands::ActiveMQDestination::getCMSDestination () const [inline, virtual]`

##### Returns:

the **cms::Destination** (p. 1480) interface pointer that the objects that derive from this class implement.

Reimplemented in **activemq::commands::ActiveMQQueue** (p. 421),  
**activemq::commands::ActiveMQTempQueue** (p. 525), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 550), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 600).

#### 6.28.2.8 `virtual unsigned char activemq::commands::ActiveMQDestination::getDataStructureType () const [virtual]`

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.



**Returns:**

The type of the data structure

Implements **activemq::commands::DataStructure** (p. 1464).

Reimplemented in **activemq::commands::ActiveMQQueue** (p. 421),  
**activemq::commands::ActiveMQTempDestination** (p. 501), **ac-**  
**tivemq::commands::ActiveMQTempQueue** (p. 526), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 551), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 600).

**6.28.2.9** `virtual cms::Destination::DestinationType ac-`  
`tivemq::commands::ActiveMQDestination::getDestinationType () const`  
`[pure virtual]`

Returns the Type of Destination that this object represents.

**Returns:**

int type qualifier.

Implemented in **activemq::commands::ActiveMQQueue** (p. 422),  
**activemq::commands::ActiveMQTempQueue** (p. 526), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 551), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 601).

**6.28.2.10** `const activemq::util::ActiveMQProperties& ac-`  
`tivemq::commands::ActiveMQDestination::getOptions () const`  
`[inline]`

**Returns:**

a reference (const) to the options properties for this Destination.

**6.28.2.11** `virtual std::string ac-`  
`tivemq::commands::ActiveMQDestination::getOrderedTarget () const`  
`[inline, virtual]`

**Returns:**

Returns the orderedTarget.

**6.28.2.12** `virtual std::string& ac-`  
`tivemq::commands::ActiveMQDestination::getPhysicalName () [inline,`  
`virtual]`

**6.28.2.13** `virtual const std::string& ac-`  
`tivemq::commands::ActiveMQDestination::getPhysicalName () const`  
`[inline, virtual]`

Fetch this destination's physical name.

**Returns:**

const string containing the name

**6.28.2.14** `virtual bool activemq::commands::ActiveMQDestination::isAdvisory () const [inline, virtual]`

**Returns:**

Returns the advisory.

**6.28.2.15** `virtual bool activemq::commands::ActiveMQDestination::isComposite () const [inline, virtual]`

Returns true if this destination represents a collection of destinations; allowing a set of destinations to be published to or subscribed from in one CMS operation.

**Returns:**

true if this destination represents a collection of child destinations.

**6.28.2.16** `virtual bool activemq::commands::ActiveMQDestination::isConnectionAdvisory () const [inline, virtual]`

**Returns:**

true if this is a destination for Connection advisories

**6.28.2.17** `virtual bool activemq::commands::ActiveMQDestination::isConsumerAdvisory () const [inline, virtual]`

**Returns:**

true if this is a destination for Consumer advisories

**6.28.2.18** `virtual bool activemq::commands::ActiveMQDestination::isExclusive () const [inline, virtual]`

**Returns:**

Returns the exclusive.

**6.28.2.19** `virtual bool activemq::commands::ActiveMQDestination::isOrdered () const [inline, virtual]`

**Returns:**

Returns the ordered.

**6.28.2.20** `virtual bool activemq::commands::ActiveMQDestination::isProducerAdvisory () const`  
[inline, virtual]

**Returns:**

true if this is a destination for Producer advisories

**6.28.2.21** `virtual bool activemq::commands::ActiveMQDestination::isQueue () const`  
[inline, virtual]

Returns true if a Queue Destination.

**Returns:**

true/false

**6.28.2.22** `virtual bool activemq::commands::ActiveMQDestination::isTemporary () const`  
[inline, virtual]

Returns true if a temporary Destination.

**Returns:**

true/false

References cms::Destination::TEMPORARY\_QUEUE, and cms::Destination::TEMPORARY\_TOPIC.

**6.28.2.23** `virtual bool activemq::commands::ActiveMQDestination::isTopic () const`  
[inline, virtual]

Returns true if a Topic Destination.

**Returns:**

true/false

References cms::Destination::TEMPORARY\_TOPIC, and cms::Destination::TOPIC.

**6.28.2.24** `virtual bool activemq::commands::ActiveMQDestination::isWildcard () const`  
[inline, virtual]

**Returns:**

true if the destination matches multiple possible destinations

**6.28.2.25** `virtual void activemq::commands::ActiveMQDestination::setAdvisory (bool advisory)` [inline, virtual]

**Parameters:**

*advisory* The advisory to set.

**6.28.2.26** virtual void activemq::commands::ActiveMQDestination::setExclusive (bool *exclusive*) [inline, virtual]

**Parameters:**

*exclusive* The exclusive to set.

**6.28.2.27** virtual void activemq::commands::ActiveMQDestination::setOrdered (bool *ordered*) [inline, virtual]

**Parameters:**

*ordered* The ordered to set.

**6.28.2.28** virtual void activemq::commands::ActiveMQDestination::setOrderedTarget (const std::string & *orderedTarget*) [inline, virtual]

**Parameters:**

*orderedTarget* The orderedTarget to set.

**6.28.2.29** virtual void activemq::commands::ActiveMQDestination::setPhysicalName (const std::string & *physicalName*) [virtual]

Set this destination's physical name.

**Returns:**

const string containing the name

**6.28.2.30** virtual std::string activemq::commands::ActiveMQDestination::toString () const [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataStructure** (p.718).

Reimplemented in **activemq::commands::ActiveMQQueue** (p.422),  
**activemq::commands::ActiveMQTempDestination** (p.501), **ac-**  
**tivemq::commands::ActiveMQTempQueue** (p.526), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p.551), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p.601).

### 6.28.3 Field Documentation

**6.28.3.1** `bool activemq::commands::ActiveMQDestination::advisory` [protected]

**6.28.3.2** `const std::string  
activemq::commands::ActiveMQDestination::ADVISORY_  
PREFIX` [static, protected]

prefix for Advisory message destinations

**6.28.3.3** `const std::string  
activemq::commands::ActiveMQDestination::COMPOSITE_  
SEPARATOR` [static, protected]

**6.28.3.4** `const std::string  
activemq::commands::ActiveMQDestination::CONNECTION_  
ADVISORY_PREFIX` [static, protected]

prefix for connection advisory destinations

**6.28.3.5** `const std::string  
activemq::commands::ActiveMQDestination::CONSUMER_  
ADVISORY_PREFIX` [static, protected]

prefix for consumer advisory destinations

**6.28.3.6** `const std::string  
activemq::commands::ActiveMQDestination::DEFAULT_  
ORDERED_TARGET` [static, protected]

The default target for ordered destinations.

6.28.3.7 `bool activemq::commands::ActiveMQDestination::exclusive` [protected]

6.28.3.8 `const unsigned char activemq::commands::ActiveMQDestination::ID _ - ACTIVEMQDESTINATION = 0` [static]

6.28.3.9 `util::ActiveMQProperties activemq::commands::ActiveMQDestination::options` [protected]

6.28.3.10 `bool activemq::commands::ActiveMQDestination::ordered` [protected]

6.28.3.11 `std::string activemq::commands::ActiveMQDestination::orderedTarget` [protected]

6.28.3.12 `std::string activemq::commands::ActiveMQDestination::physicalName` [protected]

6.28.3.13 `const std::string activemq::commands::ActiveMQDestination::PRODUCER _ - ADVISORY _ PREFIX` [static, protected]

prefix for producer advisory destinations

6.28.3.14 `const std::string activemq::commands::ActiveMQDestination::QUEUE _ - QUALIFIED _ PREFIX` [static, protected]

6.28.3.15 `const std::string activemq::commands::ActiveMQDestination::TEMP _ - POSTFIX` [static, protected]

6.28.3.16 `const std::string activemq::commands::ActiveMQDestination::TEMP _ - PREFIX` [static, protected]

6.28.3.17 `const std::string activemq::commands::ActiveMQDestination::TEMP _ - QUEUE _ QUALIFIED _ PREFIX` [static, protected]

6.28.3.18 `const std::string activemq::commands::ActiveMQDestination::TEMP _ - TOPIC _ QUALIFIED _ PREFIX` [static, protected]

6.28.3.19 `const std::string activemq::commands::ActiveMQDestination::TOPIC _ - QUALIFIED _ PREFIX` [static, protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQDestination.h`

## 6.29 activemq:wireformat::openwire::marshal:v3::ActiveMQDestinationMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 285).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h> Inheritance diagram for activemq:wireformat::openwire::marshal:v3::ActiveMQDestinationMarshaller:

### Public Member Functions

- **ActiveMQDestinationMarshaller** ()
- virtual **~ActiveMQDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.29.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 285).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.29.2 Constructor & Destructor Documentation

**6.29.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::ActiveMQDestinationMarshaller()` [inline]

**6.29.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::~~ActiveMQDestinationMarshaller()` [inline, virtual]

## 6.29.3 Member Function Documentation

**6.29.3.1** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller` (p. 424), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 504), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 529), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 554), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller` (p. 603).

**6.29.3.2** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshall an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller` (p. 425), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 504), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 530), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 555), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller` (p. 604).

**6.29.3.3** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller` (p. 425), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 505), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 530), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 555), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller` (p. 604).

**6.29.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller` (p. 425), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 505), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 530), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 555), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller` (p. 604).

**6.29.3.5** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller` (p. 426), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 506), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 531), `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 556), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller` (p. 605).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h`

## 6.30 activemq:wireformat::openwire::marshal:v1::ActiveMQDestinationMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 289).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h> Inheritance diagram for activemq:wireformat::openwire::marshal:v1::ActiveMQDestinationMarshaller:

### Public Member Functions

- **ActiveMQDestinationMarshaller** ()
- virtual **~ActiveMQDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.30.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 289).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.30.2 Constructor & Destructor Documentation

**6.30.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::ActiveMQDestinationMarshaller()` [inline]

**6.30.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::~~ActiveMQDestinationMarshaller()` [inline, virtual]

### 6.30.3 Member Function Documentation

**6.30.3.1** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 428), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 533), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 558), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 607).

**6.30.3.2** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 429), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 534), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 559), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 608).

**6.30.3.3** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 429), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 534), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 559), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 608).

**6.30.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 429), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 534), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 559), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 608).

**6.30.3.5** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 430), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 510), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 535), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 560), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 609).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h`

## 6.31 activemq:wireformat::openwire::marshal:v4::ActiveMQDestinationMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 293).

```
#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQDestinationMarshaller.h>Inheritance  
diagram for activemq:wireformat::openwire::marshal:v4::ActiveMQDestinationMarshaller:
```

### Public Member Functions

- **ActiveMQDestinationMarshaller** ()
- virtual **~ActiveMQDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.31.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 293).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.31.2 Constructor & Destructor Documentation

**6.31.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::ActiveMQDestinationMarshaller()` [inline]

**6.31.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::~~ActiveMQDestinationMarshaller()` [inline, virtual]

### 6.31.3 Member Function Documentation

**6.31.3.1** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller` (p. 432), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 537), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 562), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller` (p. 611).

**6.31.3.2** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller` (p. 433), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 538), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 563), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller` (p. 612).

**6.31.3.3** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller` (p. 433), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 538), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 563), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller` (p. 612).

**6.31.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller` (p. 433), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 538), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 563), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller` (p. 612).

**6.31.3.5** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller` (p. 434), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 514), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 539), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 564), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller` (p. 613).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQDestinationMarshaller.h`

## 6.32 activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 297).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller:

### Public Member Functions

- **ActiveMQDestinationMarshaller** ()
- virtual **~ActiveMQDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.32.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 297).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.32.2 Constructor & Destructor Documentation

**6.32.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::ActiveMQDestinationMarshaller()` [inline]

**6.32.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::~~ActiveMQDestinationMarshaller()` [inline, virtual]

## 6.32.3 Member Function Documentation

**6.32.3.1** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller` (p. 436), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 516), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 541), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 566), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller` (p. 615).

**6.32.3.2** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshall an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller** (p. 437), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller** (p. 516), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller** (p. 542), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller** (p. 567), and **activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller** (p. 616).

**6.32.3.3 virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::tightMarshal2 (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException )** [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller** (p. 437), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller** (p. 517), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller** (p. 542), **activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller** (p. 567), and **activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller** (p. 616).

**6.32.3.4 virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::tightMarshal2 (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, decaf::io::DataOutputStream \* dataOut, utils::BooleanStream \* bs) throw ( decaf::io::IOException )** [virtual]

Write a object instance to data output stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

***IOException*** if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller` (p. 437), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 517), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 542), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 567), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller` (p. 616).

**6.32.3.5** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

- wireFormat*** - describes the wire format of the broker.
- dataStructure*** - Object to be un-marshaled.
- dataIn*** - BinaryReader that provides that data.
- bs*** - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

***IOException*** if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller` (p. 438), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 518), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 543), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 568), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller` (p. 617).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h`

## 6.33 activemq:wireformat::openwire::marshal:v2::ActiveMQDestinationMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 301).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQDestinationMarshaller.h> Inheritance diagram for activemq:wireformat::openwire::marshal:v2::ActiveMQDestinationMarshaller:

### Public Member Functions

- **ActiveMQDestinationMarshaller** ()
- virtual **~ActiveMQDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.33.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 301).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.33.2 Constructor & Destructor Documentation

**6.33.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::ActiveMQDestinationMarshaller()` [inline]

**6.33.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::~~ActiveMQDestinationMarshaller()` [inline, virtual]

### 6.33.3 Member Function Documentation

**6.33.3.1** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller` (p. 440), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 520), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 545), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 570), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller` (p. 619).

**6.33.3.2** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.



Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller** (p. 441), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller** (p. 520), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller** (p. 546), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller** (p. 571), and **activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller** (p. 620).

**6.33.3.3 virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::tightMarshal2 (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException )**  
 [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller** (p. 441), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller** (p. 521), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller** (p. 546), **activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller** (p. 571), and **activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller** (p. 620).

**6.33.3.4 virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::tightMarshal2 (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, decaf::io::DataOutputStream \* dataOut, utils::BooleanStream \* bs) throw ( decaf::io::IOException )** [virtual]

Write a object instance to data output stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

***IOException*** if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller` (p. 441), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 521), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 546), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 571), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller` (p. 620).

**6.33.3.5** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

***wireFormat*** - describes the wire format of the broker.  
***dataStructure*** - Object to be un-marshaled.  
***dataIn*** - BinaryReader that provides that data.  
***bs*** - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

***IOException*** if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller` (p. 442), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 522), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 547), `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 572), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller` (p. 621).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQDestinationMarshaller.h`

## 6.34 activemq::exceptions::ActiveMQException Class Reference

#include <src/main/activemq/exceptions/ActiveMQException.h> Inheritance diagram for activemq::exceptions::ActiveMQException:

### Public Member Functions

- **ActiveMQException** () throw ()  
*Default Constructor.*
- **ActiveMQException** (const **ActiveMQException** &ex) throw ()  
*Copy Constructor.*
- **ActiveMQException** (const **decaf::lang::Exception** &ex) throw ()  
*Copy Constructor.*
- **ActiveMQException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual ~**ActiveMQException** () throw ()
- virtual **ActiveMQException** \* **clone** () const  
*Clones this exception.*
- virtual **cms::CMSException** **convertToCMSException** () const  
*Converts this exception to a new CMSException.*

### 6.34.1 Constructor & Destructor Documentation

#### 6.34.1.1 activemq::exceptions::ActiveMQException::ActiveMQException () throw ()

Default Constructor.

#### 6.34.1.2 activemq::exceptions::ActiveMQException::ActiveMQException (const ActiveMQException & ex) throw ()

Copy Constructor.

#### Parameters:

*ex* The Exception whose internal data is copied into this instance.

### 6.34.1.3 `activemq::exceptions::ActiveMQException::ActiveMQException (const decaf::lang::Exception & ex) throw ()`

Copy Constructor.

#### Parameters:

*ex* The Exception whose internal data is copied into this instance.

### 6.34.1.4 `activemq::exceptions::ActiveMQException::ActiveMQException (const char * file, const int lineNumber, const char * msg, ...) throw ()`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message.

#### Parameters:

*file* The file name where exception occurs.

*lineNumber* The line number where the exception occurred.

*msg* The message to report.

... The list of primitives that are formatted into the message.

### 6.34.1.5 `virtual activemq::exceptions::ActiveMQException::~~ActiveMQException () throw () [virtual]`

## 6.34.2 Member Function Documentation

### 6.34.2.1 `virtual ActiveMQException* activemq::exceptions::ActiveMQException::clone () const [virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

#### Returns:

Copy of this Exception object

Reimplemented from `decaf::lang::Exception` (p. 1577).

Reimplemented in `activemq::exceptions::BrokerException` (p. 749).

### 6.34.2.2 `virtual cms::CMSEException activemq::exceptions::ActiveMQException::convertToCMSEException () const [virtual]`

Converts this exception to a new CMSEException.

#### Returns:

a CMSEException with the data from this exception

The documentation for this class was generated from the following file:

- `src/main/activemq/exceptions/ActiveMQException.h`

## 6.35 activemq::commands::ActiveMQMapMessage Class Reference

#include <src/main/activemq/commands/ActiveMQMapMessage.h> Inheritance diagram for activemq::commands::ActiveMQMapMessage:

### Public Member Functions

- **ActiveMQMapMessage** ()
- virtual **~ActiveMQMapMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual bool **isMarshalAware** () const  
*Determine if this object is aware of marshaling and should have its before and after marshaling methods called.*
- virtual **ActiveMQMapMessage** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual void **beforeMarshal** (**wireformat::WireFormat** \*wireFormat) throw ( decaf::io::IOException )  
*Perform any processing needed before an marshal.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **clearBody** () throw ( cms::CMSEException )  
*Clears out the body of the message.*
- virtual **cms::MapMessage** \* **clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- virtual std::vector< std::string > **getMapNames** () const throw ( cms::CMSEException )  
*Returns an Enumeration of all the names in the MapMessage object.*
- virtual bool **itemExists** (const std::string &name) const throw ( cms::CMSEException )  
*Indicates whether an item exists in this MapMessage object.*

- virtual bool **getBoolean** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Boolean value of the Specified name.*
- virtual void **setBoolean** (const std::string &name, bool value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a boolean value with the specified name into the Map.*
- virtual unsigned char **getByte** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Byte value of the Specified name.*
- virtual void **setByte** (const std::string &name, unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Byte value with the specified name into the Map.*
- virtual std::vector< unsigned char > **getBytes** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Bytes value of the Specified name.*
- virtual void **setBytes** (const std::string &name, const std::vector< unsigned char > &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Bytes value with the specified name into the Map.*
- virtual char **getChar** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Char value of the Specified name.*
- virtual void **setChar** (const std::string &name, char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Char value with the specified name into the Map.*
- virtual double **getDouble** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Double value of the Specified name.*
- virtual void **setDouble** (const std::string &name, double value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Double value with the specified name into the Map.*
- virtual float **getFloat** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Float value of the Specified name.*
- virtual void **setFloat** (const std::string &name, float value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Float value with the specified name into the Map.*
- virtual int **getInt** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Int value of the Specified name.*

- virtual void **setInt** (const std::string &name, int value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Int value with the specified name into the Map.*
- virtual long long **getLong** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Long value of the Specified name.*
- virtual void **setLong** (const std::string &name, long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Long value with the specified name into the Map.*
- virtual short **getShort** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Short value of the Specified name.*
- virtual void **setShort** (const std::string &name, short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Short value with the specified name into the Map.*
- virtual std::string **getString** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the String value of the Specified name.*
- virtual void **setString** (const std::string &name, const std::string &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a String value with the specified name into the Map.*

## Static Public Attributes

- static const unsigned char **ID \_ACTIVEMQMAPMESSAGE** = 25

## Protected Member Functions

- **util::PrimitiveMap & getMap** () throw ( decaf::lang::exceptions::NullPointerException )  
*Fetches a reference to this objects PrimitiveMap, if one needs to be created or unmarshaled, this will perform the correct steps.*
- const **util::PrimitiveMap & getMap** () const throw ( decaf::lang::exceptions::NullPointerException )
- virtual void **checkMapIsUnmarshalled** () const throw ( decaf::lang::exceptions::NullPointerException )  
*Performs the unmarshal on the Map if needed, otherwise just returns.*



### 6.35.1 Constructor & Destructor Documentation

**6.35.1.1** `activemq::commands::ActiveMQMapMessage::ActiveMQMapMessage ()`

**6.35.1.2** `virtual  
activemq::commands::ActiveMQMapMessage::~~ActiveMQMapMessage ()  
[virtual]`

### 6.35.2 Member Function Documentation

**6.35.2.1** `virtual void activemq::commands::ActiveMQMapMessage::beforeMarshal  
(wireformat::WireFormat * wireFormat) throw ( decaf::io::IOException )  
[virtual]`

Perform any processing needed before an marshal.

#### Parameters:

*wireFormat* - the OpenWireFormat object in use.

Implements `activemq::wireformat::MarshalAware` (p. 2119).

**6.35.2.2** `virtual void ac-  
tivemq::commands::ActiveMQMapMessage::checkMapIsUnmarshalled ()  
const throw ( decaf::lang::exceptions::NullPointerException ) [protected,  
virtual]`

Performs the unmarshal on the Map if needed, otherwise just returns.

**6.35.2.3** `virtual void activemq::commands::ActiveMQMapMessage::clearBody ()  
throw ( cms::CMSException ) [virtual]`

Clears out the body of the message. This does not clear the headers or properties.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 368).

**6.35.2.4** `virtual cms::MapMessage* ac-  
tivemq::commands::ActiveMQMapMessage::clone () const  
[inline, virtual]`

Clone this message exactly, returns a new instance that the caller is required to delete.

#### Returns:

new copy of this message

Implements `cms::Message` (p. 2168).

**6.35.2.5** `virtual ActiveMQMapMessage* activemq::commands::ActiveMQMapMessage::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Reimplemented from `activemq::commands::Message` (p. 2149).

**6.35.2.6** `virtual void activemq::commands::ActiveMQMapMessage::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::Message` (p. 2150).

**6.35.2.7** `virtual bool activemq::commands::ActiveMQMapMessage::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 369).

**6.35.2.8** `virtual bool activemq::commands::ActiveMQMapMessage::getBoolean (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Boolean value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2108).

**6.35.2.9** `virtual unsigned char activemq::commands::ActiveMQMapMessage::getByte (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Byte value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2109).

**6.35.2.10** `virtual std::vector<unsigned char> activemq::commands::ActiveMQMapMessage::getBytes (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Bytes value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2109).

**6.35.2.11** `virtual char activemq::commands::ActiveMQMapMessage::getChar (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Char value of the Specified name.

**Parameters:**

*name* name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2109).

**6.35.2.12** `virtual unsigned char activemq::commands::ActiveMQMapMessage::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::Message** (p. 2152).

**6.35.2.13** `virtual double activemq::commands::ActiveMQMapMessage::getDouble (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Double value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements **cms::MapMessage** (p. 2110).

**6.35.2.14** `virtual float activemq::commands::ActiveMQMapMessage::getFloat (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Float value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements **cms::MapMessage** (p. 2110).

**6.35.2.15** `virtual int activemq::commands::ActiveMQMapMessage::getInt (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [virtual]`

Returns the Int value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements **cms::MapMessage** (p. 2110).

**6.35.2.16** `virtual long long activemq::commands::ActiveMQMapMessage::getLong (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSEException )` [virtual]

Returns the Long value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements **cms::MapMessage** (p. 2111).

**6.35.2.17** `const util::PrimitiveMap& activemq::commands::ActiveMQMapMessage::getMap () const throw ( decaf::lang::exceptions::NullPointerException )` [protected]

**6.35.2.18** `util::PrimitiveMap& activemq::commands::ActiveMQMapMessage::getMap () throw ( decaf::lang::exceptions::NullPointerException )` [protected]

Fetches a reference to this objects PrimitiveMap, if one needs to be created or unmarshaled, this will perform the correct steps.

**Returns:**

reference to a PrimitiveMap.

**6.35.2.19** `virtual std::vector< std::string > activemq::commands::ActiveMQMapMessage::getMapNames () const throw ( cms::CMSEException )` [virtual]

Returns an Enumeration of all the names in the MapMessage object.

**Returns:**

STL Vector of String values, each of which is the name of an item in the MapMessage

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

Implements **cms::MapMessage** (p. 2111).

**6.35.2.20** `virtual short activemq::commands::ActiveMQMapMessage::getShort  
(const std::string & name) const throw ( cms::MessageFormatException,  
cms::CMSEException ) [virtual]`

Returns the Short value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2111).

**6.35.2.21** `virtual std::string ac-  
tivismq::commands::ActiveMQMapMessage::getString  
(const std::string & name) const throw ( cms::MessageFormatException,  
cms::CMSEException ) [virtual]`

Returns the String value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageFormatException* - if this type conversion is invalid.

Implements `cms::MapMessage` (p. 2111).

**6.35.2.22** `virtual bool ac-  
tivismq::commands::ActiveMQMapMessage::isMarshalAware () const  
[inline, virtual]`

Determine if this object is aware of marshaling and should have its before and after marshaling methods called. Defaults to false.

**Returns:**

true if aware of marshaling

Reimplemented from `activemq::commands::Message` (p. 2155).

**6.35.2.23** `virtual bool activemq::commands::ActiveMQMapMessage::itemExists  
(const std::string & name) const throw ( cms::CMSEException )  
[virtual]`

Indicates whether an item exists in this MapMessage object.

**Parameters:**

*name* String name of the Object in question

**Returns:**

boolean value indicating if the name is in the map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

Implements **cms::MapMessage** (p. 2112).

**6.35.2.24** `virtual void activemq::commands::ActiveMQMapMessage::setBoolean  
(const std::string & name, bool value) throw (  
cms::MessageNotWriteableException, cms::CMSEException )` [virtual]

Sets a boolean value with the specified name into the Map.

**Parameters:**

*name* the name of the boolean

*value* the boolean value to set in the Map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the **Message** (p. 2145) is in Read-only Mode.

Implements **cms::MapMessage** (p. 2112).

**6.35.2.25** `virtual void activemq::commands::ActiveMQMapMessage::setByte  
(const std::string & name, unsigned char value) throw (  
cms::MessageNotWriteableException, cms::CMSEException )` [virtual]

Sets a Byte value with the specified name into the Map.

**Parameters:**

*name* the name of the Byte

*value* the Byte value to set in the Map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the **Message** (p. 2145) is in Read-only Mode.

Implements **cms::MapMessage** (p. 2112).

**6.35.2.26** `virtual void activemq::commands::ActiveMQMapMessage::setBytes (const std::string & name, const std::vector< unsigned char > & value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Sets a Bytes value with the specified name into the Map.

**Parameters:**

*name* The name of the Bytes

*value* The Bytes value to set in the Map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2113).

**6.35.2.27** `virtual void activemq::commands::ActiveMQMapMessage::setChar (const std::string & name, char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Sets a Char value with the specified name into the Map.

**Parameters:**

*name* the name of the Char

*value* the Char value to set in the Map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2113).

**6.35.2.28** `virtual void activemq::commands::ActiveMQMapMessage::setDouble (const std::string & name, double value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Sets a Double value with the specified name into the Map.

**Parameters:**

*name* The name of the Double

*value* The Double value to set in the Map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2114).



**6.35.2.29** `virtual void activemq::commands::ActiveMQMapMessage::setFloat (const std::string & name, float value) throw ( cms::MessageNotWriteableException, cms::CMSEException )` [virtual]

Sets a Float value with the specified name into the Map.

**Parameters:**

*name* The name of the Float

*value* The Float value to set in the Map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2114).

**6.35.2.30** `virtual void activemq::commands::ActiveMQMapMessage::setInt (const std::string & name, int value) throw ( cms::MessageNotWriteableException, cms::CMSEException )` [virtual]

Sets a Int value with the specified name into the Map.

**Parameters:**

*name* The name of the Int

*value* The Int value to set in the Map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2114).

**6.35.2.31** `virtual void activemq::commands::ActiveMQMapMessage::setLong (const std::string & name, long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException )` [virtual]

Sets a Long value with the specified name into the Map.

**Parameters:**

*name* The name of the Long

*value* The Long value to set in the Map

**Exceptions:**

*CMSEException* - if the operation fails due to an internal error.

*MessageNotWriteableException* - if the Message (p. 2145) is in Read-only Mode.

Implements `cms::MapMessage` (p. 2115).

**6.35.2.32** `virtual void activemq::commands::ActiveMQMapMessage::setShort (const std::string & name, short value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [virtual]

Sets a Short value with the specified name into the Map.

**Parameters:**

*name* The name of the Short  
*value* The Short value to set in the Map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.  
*MessageNotWriteableException* - if the **Message** (p. 2145) is in Read-only Mode.

Implements **cms::MapMessage** (p. 2115).

**6.35.2.33** `virtual void activemq::commands::ActiveMQMapMessage::setString (const std::string & name, const std::string & value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [virtual]

Sets a String value with the specified name into the Map.

**Parameters:**

*name* The name of the String  
*value* The String value to set in the Map

**Exceptions:**

*CMSException* - if the operation fails due to an internal error.  
*MessageNotWriteableException* - if the **Message** (p. 2145) is in Read-only Mode.

Implements **cms::MapMessage** (p. 2115).

**6.35.2.34** `virtual std::string activemq::commands::ActiveMQMapMessage::toString () const` [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Message** (p. 2159).

## 6.35.3 Field Documentation

**6.35.3.1** `const unsigned char activemq::commands::ActiveMQMapMessage::ID_ - ACTIVEMQMAPMESSAGE = 25` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQMapMessage.h`

## 6.36 activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 322).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQMapMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller:

### Public Member Functions

- **ActiveMQMapMessageMarshaller** ()
- virtual **~ActiveMQMapMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.36.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 322).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.36.2 Constructor & Destructor Documentation

**6.36.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::ActiveMQMapMessageMarshaller()` `[inline]`

**6.36.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::~~ActiveMQMapMessageMarshaller()` `[inline, virtual]`

## 6.36.3 Member Function Documentation

**6.36.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::createObject(const std::string& name) const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.36.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::getDataStructureType() const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.36.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::looseMarshal(const commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.36.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.36.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2317).

**6.36.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.36.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQMapMessageMarshaller.h`

## 6.37 activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 326).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQMapMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller:

### Public Member Functions

- **ActiveMQMapMessageMarshaller** ()
- virtual **~ActiveMQMapMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.37.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 326).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.37.2 Constructor & Destructor Documentation

**6.37.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::ActiveMQMapMessageMarshaller()` `[inline]`

**6.37.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::~~ActiveMQMapMessageMarshaller()` `[inline, virtual]`

## 6.37.3 Member Function Documentation

**6.37.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::createObject(const std::string& name) const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.37.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::getDataStructureType() const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.37.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::looseMarshal(const commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.37.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.37.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2327).

**6.37.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2328).

**6.37.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2328).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQMapMessageMarshaller.h

## 6.38 activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 330).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQMapMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller:

### Public Member Functions

- **ActiveMQMapMessageMarshaller** ()
- virtual **~ActiveMQMapMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.38.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 330).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.38.2 Constructor & Destructor Documentation

**6.38.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::ActiveMQMapMessageMarshaller()` `[inline]`

**6.38.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::~~ActiveMQMapMessageMarshaller()` `[inline, virtual]`

## 6.38.3 Member Function Documentation

**6.38.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::createObject(const std::string& name) const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.38.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::getDataStructureType() const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.38.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::looseMarshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.38.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.38.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2312).

**6.38.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

**6.38.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQMapMessageMarshaller.h`

## 6.39 activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 334).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQMapMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller:

### Public Member Functions

- **ActiveMQMapMessageMarshaller** ()
- virtual **~ActiveMQMapMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.39.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 334).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.39.2 Constructor & Destructor Documentation

**6.39.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::ActiveMQMapMessageMarshaller()` [inline]

**6.39.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::~~ActiveMQMapMessageMarshaller()` [inline, virtual]

## 6.39.3 Member Function Documentation

**6.39.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::createObject(const commands::DataStructure& dataStructure) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.39.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.39.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::looseMarshal(const commands::DataStructure& dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.39.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.39.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2322).

**6.39.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

**6.39.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQMapMessageMarshaller.h`

## 6.40 activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 338).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQMapMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller:

### Public Member Functions

- **ActiveMQMapMessageMarshaller** ()
- virtual **~ActiveMQMapMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.40.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 338).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.40.2 Constructor & Destructor Documentation

**6.40.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::ActiveMQMapMessageMarshaller()` [inline]

**6.40.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::~~ActiveMQMapMessageMarshaller()` [inline, virtual]

## 6.40.3 Member Function Documentation

**6.40.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.40.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.40.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::looseMarshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.40.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.40.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2307).

**6.40.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.40.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQMapMessageMarshaller.h`

## 6.41 activemq::commands::ActiveMQMessage Class Reference

#include <src/main/activemq/commands/ActiveMQMessage.h> Inheritance diagram for activemq::commands::ActiveMQMessage:

### Public Member Functions

- **ActiveMQMessage** ()
- virtual **~ActiveMQMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual **ActiveMQMessage** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual **cms::Message** \* **clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*

### Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQMESSAGE** = 23

#### 6.41.1 Constructor & Destructor Documentation

6.41.1.1 **activemq::commands::ActiveMQMessage::ActiveMQMessage** ()

6.41.1.2 **virtual activemq::commands::ActiveMQMessage::~~ActiveMQMessage** ()  
[inline, virtual]

#### 6.41.2 Member Function Documentation

6.41.2.1 **virtual cms::Message\* activemq::commands::ActiveMQMessage::clone** ()  
const [inline, virtual]

Clone this message exactly, returns a new instance that the caller is required to delete.



**Returns:**

new copy of this message

Implements **cms::Message** (p. 2168).

**6.41.2.2** `virtual ActiveMQMessage* activemq::commands::ActiveMQMessage::cloneDataStructure() const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Reimplemented from **activemq::commands::Message** (p. 2149).

**6.41.2.3** `virtual void activemq::commands::ActiveMQMessage::copyDataStructure(const DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from **activemq::commands::Message** (p. 2150).

**6.41.2.4** `virtual bool activemq::commands::ActiveMQMessage::equals(const DataStructure * value) const [virtual]`

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::ActiveMQMessageTemplate< cms::Message >** (p. 369).

**6.41.2.5** `virtual unsigned char activemq::commands::ActiveMQMessage::getDataStructureType() const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::Message** (p. 2152).

#### 6.41.2.6 `virtual std::string activemq::commands::ActiveMQMessage::toString ()` `const` [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

##### Returns:

formatted string useful for debugging.

Reimplemented from `activemq::commands::Message` (p.2159).

### 6.41.3 Field Documentation

#### 6.41.3.1 `const unsigned char activemq::commands::ActiveMQMessage::ID_-` `ACTIVEMQMESSAGE = 23` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQMessage.h`

## 6.42 activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 345).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller:

### Public Member Functions

- **ActiveMQMessageMarshaller** ()
- virtual **~ActiveMQMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.42.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 345). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.42.2 Constructor & Destructor Documentation

**6.42.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::ActiveMQMessageMarshaller()` [inline]

**6.42.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::~~ActiveMQMessageMarshaller()` [inline, virtual]

## 6.42.3 Member Function Documentation

**6.42.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.42.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.42.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.42.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.42.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2317).

**6.42.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.42.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQMessageMarshaller.h`

## 6.43 activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 349).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller:

### Public Member Functions

- **ActiveMQMessageMarshaller** ()
- virtual **~ActiveMQMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.43.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 349). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.43.2 Constructor & Destructor Documentation

**6.43.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::ActiveMQMessageMarshaller()` [inline]

**6.43.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::~~ActiveMQMessageMarshaller()` [inline, virtual]

## 6.43.3 Member Function Documentation

**6.43.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.43.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.43.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.43.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.43.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2327).

**6.43.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

**6.43.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQMessageMarshaller.h`

## 6.44 activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 353).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller:

### Public Member Functions

- **ActiveMQMessageMarshaller** ()
- virtual **~ActiveMQMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

#### 6.44.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 353). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.44.2 Constructor & Destructor Documentation

**6.44.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::ActiveMQMessageMarshaller()` [inline]

**6.44.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::~~ActiveMQMessageMarshaller()` [inline, virtual]

## 6.44.3 Member Function Documentation

**6.44.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.44.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.44.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.44.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.44.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2312).

```

6.44.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

```

6.44.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQMessageMarshaller.h`

## 6.45 activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 357).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller:

### Public Member Functions

- **ActiveMQMessageMarshaller** ()
- virtual **~ActiveMQMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.45.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 357). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.45.2 Constructor & Destructor Documentation

**6.45.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::ActiveMQMessageMarshaller()` [inline]

**6.45.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::~~ActiveMQMessageMarshaller()` [inline, virtual]

## 6.45.3 Member Function Documentation

**6.45.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.45.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.45.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.45.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.45.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2322).

**6.45.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

**6.45.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQMessageMarshaller.h`

## 6.46 activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 361).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller:

### Public Member Functions

- **ActiveMQMessageMarshaller** ()
- virtual **~ActiveMQMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.46.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 361). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.46.2 Constructor & Destructor Documentation

**6.46.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::ActiveMQMessageMarshaller()` [inline]

**6.46.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::~~ActiveMQMessageMarshaller()` [inline, virtual]

## 6.46.3 Member Function Documentation

**6.46.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.46.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.46.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.46.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.46.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2307).

**6.46.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.46.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQMessageMarshaller.h`

## 6.47 activemq::commands::ActiveMQMessageTemplate< T > Class Template Reference

#include <src/main/activemq/commands/ActiveMQMessageTemplate.h> Inheritance diagram for activemq::commands::ActiveMQMessageTemplate< T >:

### Public Member Functions

- **ActiveMQMessageTemplate** ()
- virtual **~ActiveMQMessageTemplate** ()
- virtual void **acknowledge** () const throw ( cms::IllegalStateException, cms::CMSException )  
*Acknowledges all consumed messages of the session of this consumed message.*
- virtual void **onSend** ()  
*Resets the **Message** (p. 2145) to a Read-Only state.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **clearBody** () throw ( cms::CMSException )  
*Clears out the body of the message.*
- virtual void **clearProperties** () throw ( cms::CMSException )  
*Clears the message properties.*
- virtual std::vector< std::string > **getPropertyNames** () const throw ( cms::CMSException )  
*Retrieves the property names.*
- virtual bool **propertyExists** (const std::string &name) const throw ( cms::CMSException )  
*Indicates whether or not a given property exists.*
- virtual bool **getBooleanProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSException )  
*Gets a boolean property.*
- virtual unsigned char **getByteProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSException )  
*Gets a byte property.*
- virtual double **getDoubleProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSException )  
*Gets a double property.*
- virtual float **getFloatProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSException )

*Gets a float property.*

- virtual int **getIntProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )

*Gets a int property.*

- virtual long long **getLongProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )

*Gets a long property.*

- virtual short **getShortProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )

*Gets a short property.*

- virtual std::string **getStringProperty** (const std::string &name) const throw ( cms::MessageFormatException, cms::CMSEException )

*Gets a string property.*

- virtual void **setBooleanProperty** (const std::string &name, bool value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a boolean property.*

- virtual void **setByteProperty** (const std::string &name, unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a byte property.*

- virtual void **setDoubleProperty** (const std::string &name, double value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a double property.*

- virtual void **setFloatProperty** (const std::string &name, float value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a float property.*

- virtual void **setIntProperty** (const std::string &name, int value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a int property.*

- virtual void **setLongProperty** (const std::string &name, long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a long property.*

- virtual void **setShortProperty** (const std::string &name, short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a short property.*

- virtual void **setStringProperty** (const std::string &name, const std::string &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a string property.*

- virtual std::string **getCMSCorrelationID** () const throw ( cms::CMSEException )



*Get the Correlation Id for this message.*

- virtual void **setCMSCorrelationID** (const std::string &correlationId) throw ( cms::CMSException )

*Sets the Correlation Id used by this message.*

- virtual int **getCMSDeliveryMode** () const throw ( cms::CMSException )

*Gets the DeliveryMode for this message.*

- virtual void **setCMSDeliveryMode** (int mode) throw ( cms::CMSException )

*Sets the DeliveryMode for this message.*

- virtual const cms::Destination \* **getCMSDestination** () const throw ( cms::CMSException )

*Gets the Destination for this **Message** (p. 2145), returns a.*

- virtual void **setCMSDestination** (const cms::Destination \*destination) throw ( cms::CMSException )

*Sets the Destination for this message.*

- virtual long long **getCMSExpiration** () const throw ( cms::CMSException )

*Gets the Expiration Time for this **Message** (p. 2145).*

- virtual void **setCMSExpiration** (long long expireTime) throw ( cms::CMSException )

*Sets the Expiration Time for this message.*

- virtual std::string **getCMSMessageID** () const throw ( cms::CMSException )

*Gets the CMS **Message** (p. 2145) Id for this **Message** (p. 2145).*

- virtual void **setCMSMessageID** (const std::string &id AMQCPP\_UNUSED) throw ( cms::CMSException )

*Sets the CMS **Message** (p. 2145) Id for this message.*

- virtual int **getCMSPriority** () const throw ( cms::CMSException )

*Gets the Priority Value for this **Message** (p. 2145).*

- virtual void **setCMSPriority** (int priority) throw ( cms::CMSException )

*Sets the Priority Value for this message.*

- virtual bool **getCMSRedelivered** () const throw ( cms::CMSException )

*Gets the Redelivered Flag for this **Message** (p. 2145).*

- virtual void **setCMSRedelivered** (bool redelivered AMQCPP\_UNUSED) throw ( cms::CMSException )

*Sets the Redelivered Flag for this message.*

- virtual const cms::Destination \* **getCMSReplyTo** () const throw ( cms::CMSException )

*Gets the CMS Reply To Address for this **Message** (p. 2145).*

- virtual void **setCMSReplyTo** (const **cms::Destination** \*destination) throw ( cms::CMSException )  
*Sets the CMS Reply To Address for this message.*
- virtual long long **getCMSTimestamp** () const throw ( cms::CMSException )  
*Gets the Time Stamp for this **Message** (p. 2145).*
- virtual void **setCMSTimestamp** (long long timeStamp) throw ( cms::CMSException )  
*Sets the Time Stamp for this message.*
- virtual std::string **getCMSType** () const throw ( cms::CMSException )  
*Gets the CMS **Message** (p. 2145) Type for this **Message** (p. 2145).*
- virtual void **setCMSType** (const std::string &type) throw ( cms::CMSException )  
*Sets the CMS **Message** (p. 2145) Type for this message.*

## Protected Member Functions

- void **failIfWriteOnlyBody** () const
- void **failIfReadOnlyBody** () const
- void **failIfReadOnlyProperties** () const

```
template<typename T> class activemq::commands::ActiveMQMessageTemplate< T
>
```

### 6.47.1 Constructor & Destructor Documentation

- 6.47.1.1 `template<typename T>  
activemq::commands::ActiveMQMessageTemplate< T  
>::ActiveMQMessageTemplate () [inline]`
- 6.47.1.2 `template<typename T> virtual  
activemq::commands::ActiveMQMessageTemplate< T  
>::~~ActiveMQMessageTemplate () [inline, virtual]`

### 6.47.2 Member Function Documentation

- 6.47.2.1 `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::acknowledge () const throw ( cms::IllegalStateException,  
cms::CMSException ) [inline, virtual]`

Acknowledges all consumed messages of the session of this consumed message.

- 6.47.2.2 `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::clearBody () throw ( cms::CMSException ) [inline, virtual]`

Clears out the body of the message. This does not clear the headers or properties.

Reimplemented in **activemq::commands::ActiveMQBytesMessage** (p. 200), **activemq::commands::ActiveMQMapMessage** (p. 311), **activemq::commands::ActiveMQStreamMessage** (p. 467), and **activemq::commands::ActiveMQTextMessage** (p. 574).

**6.47.2.3** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::clearProperties () throw ( cms::CMSException ) [inline, virtual]`

Clears the message properties. Does not clear the body or header values.

**6.47.2.4** `template<typename T> virtual bool  
activemq::commands::ActiveMQMessageTemplate< T  
>::equals (const DataStructure * value) const [inline, virtual]`

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::Message** (p. 2150).

Reimplemented in **activemq::commands::ActiveMQBlobMessage** (p. 174), **activemq::commands::ActiveMQBytesMessage** (p. 201), **activemq::commands::ActiveMQMapMessage** (p. 312), **activemq::commands::ActiveMQMessage** (p. 343), **activemq::commands::ActiveMQObjectMessage** (p. 384), **activemq::commands::ActiveMQStreamMessage** (p. 468), and **activemq::commands::ActiveMQTextMessage** (p. 575).

**6.47.2.5** `template<typename T> void  
activemq::commands::ActiveMQMessageTemplate< T  
>::failIfReadOnlyBody () const [inline, protected]`

**6.47.2.6** `template<typename T> void  
activemq::commands::ActiveMQMessageTemplate< T  
>::failIfReadOnlyProperties () const [inline, protected]`

**6.47.2.7** `template<typename T> void  
activemq::commands::ActiveMQMessageTemplate< T  
>::failIfWriteOnlyBody () const [inline, protected]`

**6.47.2.8** `template<typename T> virtual bool  
activemq::commands::ActiveMQMessageTemplate< T  
>::getBooleanProperty (const std::string & name) const throw (  
cms::MessageFormatException, cms::CMSException ) [inline, virtual]`

Gets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

```
6.47.2.9  template<typename T> virtual unsigned char
          activemq::commands::ActiveMQMessageTemplate< T >::getByteProperty
          (const std::string & name) const throw ( cms::MessageFormatException,
          cms::CMSEException ) [inline, virtual]
```

Gets a byte property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

```
6.47.2.10 template<typename T> virtual std::string
          activemq::commands::ActiveMQMessageTemplate< T
          >::getCMSCorrelationID () const throw ( cms::CMSEException )
          [inline, virtual]
```

Get the Correlation Id for this message.

**Returns:**

string representation of the correlation Id

**Exceptions:**

*CMSEException*

```
6.47.2.11 template<typename T> virtual int
          activemq::commands::ActiveMQMessageTemplate< T
          >::getCMSDeliveryMode () const throw ( cms::CMSEException )
          [inline, virtual]
```

Gets the DeliveryMode for this message.

**Returns:**

DeliveryMode enumerated value.

Exceptions:

*CMSException*

**6.47.2.12** `template<typename T> virtual const cms::Destination*  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSDestination () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the Destination for this **Message** (p. 2145), returns a.

Returns:

Destination object

Exceptions:

*CMSException*

**6.47.2.13** `template<typename T> virtual long long  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSExpiration () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the Expiration Time for this **Message** (p. 2145).

Returns:

time value

Exceptions:

*CMSException*

**6.47.2.14** `template<typename T> virtual std::string  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSMessageID () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the CMS **Message** (p. 2145) Id for this **Message** (p. 2145).

Returns:

time value

Exceptions:

*CMSException*

**6.47.2.15** `template<typename T> virtual int  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSPriority () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the Priority Value for this **Message** (p. 2145).

**Returns:**

priority value

**Exceptions:**

*CMSException*

**6.47.2.16** `template<typename T> virtual bool  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSRedelivered () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the Redelivered Flag for this **Message** (p. 2145).

**Returns:**

redelivered value

**Exceptions:**

*CMSException*

**6.47.2.17** `template<typename T> virtual const cms::Destination*  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSReplyTo () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the CMS Reply To Address for this **Message** (p. 2145).

**Returns:**

Reply To Value

**Exceptions:**

*CMSException*

**6.47.2.18** `template<typename T> virtual long long  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSTimestamp () const throw ( cms::CMSException ) [inline,  
virtual]`

Gets the Time Stamp for this **Message** (p. 2145).

**Returns:**

time stamp value

**Exceptions:**

*CMSEException*

**6.47.2.19**    `template<typename T> virtual std::string  
activemq::commands::ActiveMQMessageTemplate< T  
>::getCMSType () const throw ( cms::CMSEException ) [inline,  
virtual]`

Gets the CMS Message (p. 2145) Type for this Message (p. 2145).

**Returns:**

type value

**Exceptions:**

*CMSEException*

**6.47.2.20**    `template<typename T> virtual double  
activemq::commands::ActiveMQMessageTemplate< T  
>::getDoubleProperty (const std::string & name) const throw (  
cms::MessageFormatException, cms::CMSEException ) [inline, virtual]`

Gets a double property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

**6.47.2.21**    `template<typename T> virtual float  
activemq::commands::ActiveMQMessageTemplate< T  
>::getFloatProperty (const std::string & name) const throw (  
cms::MessageFormatException, cms::CMSEException ) [inline, virtual]`

Gets a float property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

```
6.47.2.22  template<typename T> virtual int
           activemq::commands::ActiveMQMessageTemplate< T
           >::getIntProperty (const std::string & name) const throw (
           cms::MessageFormatException, cms::CMSEException ) [inline, virtual]
```

Gets a int property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

```
6.47.2.23  template<typename T> virtual long long
           activemq::commands::ActiveMQMessageTemplate< T
           >::getLongProperty (const std::string & name) const throw (
           cms::MessageFormatException, cms::CMSEException ) [inline, virtual]
```

Gets a long property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.



**6.47.2.24** `template<typename T> virtual std::vector<std::string>  
activemq::commands::ActiveMQMessageTemplate< T  
>::getPropertyNames () const throw ( cms::CMSEException ) [inline,  
virtual]`

Retrieves the property names.

**Returns:**

The complete set of property names currently in this message.

**6.47.2.25** `template<typename T> virtual short  
activemq::commands::ActiveMQMessageTemplate< T  
>::getShortProperty (const std::string & name) const throw (  
cms::MessageFormatException, cms::CMSEException ) [inline, virtual]`

Gets a short property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

**6.47.2.26** `template<typename T> virtual std::string  
activemq::commands::ActiveMQMessageTemplate< T  
>::getStringProperty (const std::string & name) const throw (  
cms::MessageFormatException, cms::CMSEException ) [inline, virtual]`

Gets a string property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* if the property does not exist.

*MessageFormatException* - if this type conversion is invalid.

**6.47.2.27** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::onSend () [inline, virtual]`

Resets the **Message** (p. 2145) to a Read-Only state.

Reimplemented from **activemq::commands::Message** (p. 2156).

Reimplemented in **activemq::commands::ActiveMQBytesMessage** (p. 202), and **activemq::commands::ActiveMQStreamMessage** (p. 468).

**6.47.2.28** `template<typename T> virtual bool  
activemq::commands::ActiveMQMessageTemplate< T  
>::propertyExists (const std::string & name) const throw ( cms::CMSException ) [inline, virtual]`

Indicates whether or not a given property exists.

**Parameters:**

*name* The name of the property to look up.

**Returns:**

True if the property exists in this message.

**6.47.2.29** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setBooleanProperty (const std::string & name, bool value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [inline, virtual]`

Sets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.30** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setByteProperty (const std::string & name, unsigned char value)  
throw ( cms::MessageNotWriteableException, cms::CMSException )  
[inline, virtual]`

Sets a byte property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.31**    `template<typename T> virtual void  
          activemq::commands::ActiveMQMessageTemplate< T  
          >::setCMSCorrelationID (const std::string & correlationId) throw ( cms::CMSException ) [inline, virtual]`

Sets the Correlation Id used by this message.

**Parameters:**

*correlationId* - String representing the correlation id.

**Exceptions:**

*CMSException*

**6.47.2.32**    `template<typename T> virtual void  
          activemq::commands::ActiveMQMessageTemplate< T  
          >::setCMSDeliveryMode (int mode) throw ( cms::CMSException ) [inline, virtual]`

Sets the DeliveryMode for this message.

**Parameters:**

*mode* - DeliveryMode enumerated value.

**Exceptions:**

*CMSException*

**6.47.2.33**    `template<typename T> virtual void  
          activemq::commands::ActiveMQMessageTemplate< T  
          >::setCMSDestination (const cms::Destination * destination) throw ( cms::CMSException ) [inline, virtual]`

Sets the Destination for this message.

**Parameters:**

*destination* - Destination Object

**Exceptions:**

*CMSException*

**6.47.2.34** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setCMSExpiration (long long expireTime) throw ( cms::CMSException )` [inline, virtual]

Sets the Expiration Time for this message.

**Parameters:**

*expireTime* - time value

**Exceptions:**

*CMSException*

**6.47.2.35** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setCMSMessageID (const std::string &id AMQCPP_UNUSED)  
throw ( cms::CMSException )` [inline, virtual]

Sets the CMS Message (p. 2145) Id for this message.

**Parameters:**

*id* - time value

**Exceptions:**

*CMSException*

**6.47.2.36** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setCMSPriority (int priority) throw ( cms::CMSException )` [inline, virtual]

Sets the Priority Value for this message.

**Parameters:**

*priority* - priority value for this message

**Exceptions:**

*CMSException*

**6.47.2.37** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setCMSRedelivered (bool redelivered AMQCPP_UNUSED) throw ( cms::CMSException )` [inline, virtual]

Sets the Redelivered Flag for this message.

**Parameters:**

*redelivered* - boolean redelivered value

**Exceptions:**

*CMSException*

```
6.47.2.38  template<typename T> virtual void
           activemq::commands::ActiveMQMessageTemplate< T
           >::setCMSReplyTo (const cms::Destination * destination) throw (
           cms::CMSException ) [inline, virtual]
```

Sets the CMS Reply To Address for this message.

**Parameters:**

*destination* Pointer to the CMS Destination that is the Reply-To value.

**Exceptions:**

*CMSException*

```
6.47.2.39  template<typename T> virtual void
           activemq::commands::ActiveMQMessageTemplate< T
           >::setCMSTimestamp (long long timeStamp) throw (
           cms::CMSException ) [inline, virtual]
```

Sets the Time Stamp for this message.

**Parameters:**

*timeStamp* - integer time stamp value

**Exceptions:**

*CMSException*

```
6.47.2.40  template<typename T> virtual void
           activemq::commands::ActiveMQMessageTemplate< T
           >::setCMSType (const std::string & type) throw ( cms::CMSException )
           [inline, virtual]
```

Sets the CMS **Message** (p. 2145) Type for this message.

**Parameters:**

*type* - message type value string

**Exceptions:**

*CMSException*

**6.47.2.41** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setDoubleProperty (const std::string & name, double value) throw (  
cms::MessageNotWriteableException, cms::CMSEException ) [inline,  
virtual]`

Sets a double property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.42** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setFloatProperty (const std::string & name, float value) throw (  
cms::MessageNotWriteableException, cms::CMSEException ) [inline,  
virtual]`

Sets a float property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.43** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setIntProperty (const std::string & name, int value) throw (  
cms::MessageNotWriteableException, cms::CMSEException ) [inline,  
virtual]`

Sets a int property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.44** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setLongProperty (const std::string & name, long long value) throw (  
cms::MessageNotWriteableException, cms::CMSEException ) [inline,  
virtual]`

Sets a long property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.45** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setShortProperty (const std::string & name, short value) throw (  
cms::MessageNotWriteableException, cms::CMSEException ) [inline,  
virtual]`

Sets a short property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

*MessageNotWriteableException* - if properties are read-only

**6.47.2.46** `template<typename T> virtual void  
activemq::commands::ActiveMQMessageTemplate< T  
>::setStringProperty (const std::string & name, const std::string &  
value) throw ( cms::MessageNotWriteableException, cms::CMSEException  
) [inline, virtual]`

Sets a string property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSEException* - if the name is an empty string.

***MessageNotWriteableException*** - if properties are read-only

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQMessageTemplate.h`



## 6.48 activemq::commands::ActiveMQObjectMessage Class Reference

#include <src/main/activemq/commands/ActiveMQObjectMessage.h> Inheritance diagram for activemq::commands::ActiveMQObjectMessage:

### Public Member Functions

- **ActiveMQObjectMessage** ()
- virtual **~ActiveMQObjectMessage** ()
- virtual unsigned char **getDataStructureType** () const

*Get the unique identifier that this object and its own Marshaler share.*

- virtual **ActiveMQObjectMessage \* cloneDataStructure** () const

*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*

- virtual void **copyDataStructure** (const **DataStructure** \*src)

*Copy the contents of the passed object into this objects members, overwriting any existing data.*

- virtual std::string **toString** () const

*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*

- virtual bool **equals** (const **DataStructure** \*value) const

*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*

- virtual **cms::Message \* clone** () const

*Clone this message exactly, returns a new instance that the caller is required to delete.*

### Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQOBJECTMESSAGE** = 26

## 6.48.1 Constructor & Destructor Documentation

**6.48.1.1** `activemq::commands::ActiveMQObjectMessage::ActiveMQObjectMessage()`

**6.48.1.2** `virtual activemq::commands::ActiveMQObjectMessage::~~ActiveMQObjectMessage()` [inline, virtual]

## 6.48.2 Member Function Documentation

**6.48.2.1** `virtual cms::Message* activemq::commands::ActiveMQObjectMessage::clone()` const [inline, virtual]

Clone this message exactly, returns a new instance that the caller is required to delete.

### Returns:

new copy of this message

Implements `cms::Message` (p. 2168).

**6.48.2.2** `virtual ActiveMQObjectMessage* activemq::commands::ActiveMQObjectMessage::cloneDataStructure()` const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Message` (p. 2149).

**6.48.2.3** `virtual void activemq::commands::ActiveMQObjectMessage::copyDataStructure(const DataStructure * src)` [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

### Returns:

src - Source Object

Reimplemented from `activemq::commands::Message` (p. 2150).

**6.48.2.4** `virtual bool activemq::commands::ActiveMQObjectMessage::equals(const DataStructure * value)` const [virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 369).

**6.48.2.5** `virtual unsigned char activemq::commands::ActiveMQObjectMessage::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from `activemq::commands::Message` (p. 2152).

**6.48.2.6** `virtual std::string activemq::commands::ActiveMQObjectMessage::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::Message` (p. 2159).

### 6.48.3 Field Documentation

**6.48.3.1** `const unsigned char activemq::commands::ActiveMQObjectMessage::ID_-ACTIVEMQOBJECTMESSAGE = 26 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQObjectMessage.h`

## 6.49 activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 386).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQObjectMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller:

### Public Member Functions

- **ActiveMQObjectMessageMarshaller** ()
- virtual **~ActiveMQObjectMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.49.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 386).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

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6.49.2 Constructor & Destructor Documentation

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**6.49.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::ActiveMQObjectMessageMarshaller()` [inline]

**6.49.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::~~ActiveMQObjectMessageMarshaller()` [inline, virtual]

## 6.49.3 Member Function Documentation

**6.49.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::createObject(const std::string&)` [virtual]

Creates a new instance of this marshalable type.

**Returns:**

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.49.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::getDataStructureType()` [virtual]

Get the Data Structure Type that identifies this Marshaler.

**Returns:**

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.49.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.49.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.49.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2317).

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activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller

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```
6.49.3.6 virtual void ac-
        tivemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::tightMarshal
        (OpenWireFormat * wireFormat, commands::DataStructure
        * dataStructure, decaf::io::DataOutputStream * dataOut,
        utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller`  
(p. 2318).

```
6.49.3.7 virtual void ac-
        tivemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller::tightUnma
        (OpenWireFormat * wireFormat, commands::DataStructure *
        dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
        * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller`  
(p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQObjectMessageMarshaller.h`

## 6.50 activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 390).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQObjectMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller:

### Public Member Functions

- **ActiveMQObjectMessageMarshaller** ()
- virtual **~ActiveMQObjectMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.50.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 390).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.50.2 Constructor & Destructor Documentation

**6.50.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::ActiveMQObjectMessageMarshaller()` [inline]

**6.50.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::~~ActiveMQObjectMessageMarshaller()` [inline, virtual]

## 6.50.3 Member Function Documentation

**6.50.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::createObject(const commands::DataStructure& dataStructure) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.50.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.50.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::marshal(const commands::DataStructure& dataStructure, decaf::io::DataOutputStream& dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.50.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.50.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2327).

```

6.50.3.6 virtual void ac-
        tivemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::tightMarshal
        (OpenWireFormat * wireFormat, commands::DataStructure
        * dataStructure, decaf::io::DataOutputStream * dataOut,
        utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

```

6.50.3.7 virtual void ac-
        tivemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller::tightUnma
        (OpenWireFormat * wireFormat, commands::DataStructure *
        dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
        * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQObjectMessageMarshaller.h`

## 6.51 activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 394).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQObjectMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller:

### Public Member Functions

- **ActiveMQObjectMessageMarshaller** ()
- virtual **~ActiveMQObjectMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.51.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 394).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.51.2 Constructor & Destructor Documentation

**6.51.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::ActiveMQObjectMessageMarshaller()` [inline]

**6.51.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::~~ActiveMQObjectMessageMarshaller()` [inline, virtual]

## 6.51.3 Member Function Documentation

**6.51.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.51.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.51.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.51.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.51.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2312).

```

6.51.3.6 virtual void ac-
        tivemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::tightMarshal
        (OpenWireFormat * wireFormat, commands::DataStructure
        * dataStructure, decaf::io::DataOutputStream * dataOut,
        utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

```

6.51.3.7 virtual void ac-
        tivemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller::tightUnma
        (OpenWireFormat * wireFormat, commands::DataStructure *
        dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
        * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQObjectMessageMarshaller.h`

## 6.52 activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 398).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQObjectMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller:

### Public Member Functions

- **ActiveMQObjectMessageMarshaller** ()
- virtual **~ActiveMQObjectMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.52.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 398).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.52.2 Constructor & Destructor Documentation

**6.52.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::ActiveMQObjectMessageMarshaller()` [inline]

**6.52.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::~~ActiveMQObjectMessageMarshaller()` [inline, virtual]

## 6.52.3 Member Function Documentation

**6.52.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.52.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.52.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.52.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.52.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2322).

```

6.52.3.6 virtual void ac-
        tivemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::tightMarshal
        (OpenWireFormat * wireFormat, commands::DataStructure
        * dataStructure, decaf::io::DataOutputStream * dataOut,
        utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryReader that provides that data sink
- bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

```

6.52.3.7 virtual void ac-
        tivemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller::tightUnma
        (OpenWireFormat * wireFormat, commands::DataStructure *
        dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
        * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQObjectMessageMarshaller.h`

## 6.53 activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 402).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQObjectMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller:

### Public Member Functions

- **ActiveMQObjectMessageMarshaller** ()
- virtual **~ActiveMQObjectMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.53.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 402).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.53.2 Constructor & Destructor Documentation

**6.53.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::ActiveMQObjectMessageMarshaller()` [inline]

**6.53.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::~~ActiveMQObjectMessageMarshaller()` [inline, virtual]

### 6.53.3 Member Function Documentation

**6.53.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

#### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.53.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

#### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.53.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.53.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.53.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2307).

```

6.53.3.6 virtual void ac-
        tivemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::tightMarshal
        (OpenWireFormat * wireFormat, commands::DataStructure
        * dataStructure, decaf::io::DataOutputStream * dataOut,
        utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

```

6.53.3.7 virtual void ac-
        tivemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller::tightUnma
        (OpenWireFormat * wireFormat, commands::DataStructure *
        dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
        * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQObjectMessageMarshaller.h`

## 6.54 activemq::core::ActiveMQProducer Class Reference

#include <src/main/activemq/core/ActiveMQProducer.h> Inheritance diagram for activemq::core::ActiveMQProducer:

### Public Member Functions

- **ActiveMQProducer** (const **Pointer**< **commands::ProducerInfo** > &producerInfo, const **Pointer**< **cms::Destination** > &destination, **ActiveMQSession** \*session)  
*Constructor, creates an instance of an **ActiveMQProducer** (p. 406).*
- virtual ~**ActiveMQProducer** ()
- virtual void **close** () throw ( cms::CMSException )  
*Closes the Consumer.*
- virtual void **send** (cms::Message \*message) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (cms::Message \*message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const cms::Destination \*destination, cms::Message \*message) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const cms::Destination \*destination, cms::Message \*message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **setDeliveryMode** (int mode) throw ( cms::CMSException )  
*Sets the delivery mode for this Producer.*
- virtual int **getDeliveryMode** () const throw ( cms::CMSException )  
*Gets the delivery mode for this Producer.*
- virtual void **setDisableMessageID** (bool value) throw ( cms::CMSException )  
*Sets if Message Ids are disabled for this Producer.*



- virtual bool **getDisableMessageID** () const throw ( cms::CMSEException )  
*Gets if Message Ids are disabled for this Producer.*
- virtual void **setDisableMessageTimeStamp** (bool value) throw ( cms::CMSEException )  
*Sets if Message Time Stamps are disabled for this Producer.*
- virtual bool **getDisableMessageTimeStamp** () const throw ( cms::CMSEException )  
*Gets if Message Time Stamps are disabled for this Producer.*
- virtual void **setPriority** (int priority) throw ( cms::CMSEException )  
*Sets the Priority that this Producers sends messages at.*
- virtual int **getPriority** () const throw ( cms::CMSEException )  
*Gets the Priority level that this producer sends messages at.*
- virtual void **setTimeToLive** (long long time) throw ( cms::CMSEException )  
*Sets the Time to Live that this Producers sends messages with.*
- virtual long long **getTimeToLive** () const throw ( cms::CMSEException )  
*Gets the Time to Live that this producer sends messages with.*
- virtual void **setSendTimeout** (long long time) throw ( cms::CMSEException )  
*Sets the Send Timeout that this Producers sends messages with.*
- virtual long long **getSendTimeout** () const throw ( cms::CMSEException )  
*Gets the Send Timeout that this producer sends messages with.*
- bool **isClosed** () const
- const **commands::ProducerInfo** & **getProducerInfo** () const  
*Retries this object ProducerInfo pointer.*
- **commands::ProducerId** & **getProducerId** () const  
*Retries this object ProducerId or NULL if closed.*
- virtual void **onProducerAck** (const **commands::ProducerAck** &ack)  
*Handles the work of Processing a ProducerAck Command from the Broker.*

### 6.54.1 Constructor & Destructor Documentation

- 6.54.1.1** **activemq::core::ActiveMQProducer::ActiveMQProducer** (const **Pointer**< **commands::ProducerInfo** > & *producerInfo*, const **Pointer**< **cms::Destination** > & *destination*, **ActiveMQSession** \* *session*)

Constructor, creates an instance of an **ActiveMQProducer** (p. 406).

#### Parameters:

- producerInfo*** Pointer to a ProducerInfo command which identifies this producer.
- destination*** The assigned Destination this Producer sends to, or null if not set. The Producer does not own the Pointer passed.
- session*** The Session which is the parent of this Producer.

**6.54.1.2** `virtual activemq::core::ActiveMQProducer::~~ActiveMQProducer ()`  
[virtual]

## 6.54.2 Member Function Documentation

**6.54.2.1** `virtual void activemq::core::ActiveMQProducer::close () throw (`  
`cms::CMSEException )` [virtual]

Closes the Consumer. This will return all allocated resources and purge any outstanding messages. This method will block if there is a call to receive in progress, or a dispatch to a MessageListener in place

### Exceptions:

*CMSEException*

Implements **cms::Closeable** (p.1021).

**6.54.2.2** `virtual int activemq::core::ActiveMQProducer::getDeliveryMode () const`  
`throw ( cms::CMSEException )` [inline, virtual]

Gets the delivery mode for this Producer.

### Returns:

The DeliveryMode

Implements **cms::MessageProducer** (p.2333).

**6.54.2.3** `virtual bool activemq::core::ActiveMQProducer::getDisableMessageID ()`  
`const throw ( cms::CMSEException )` [inline, virtual]

Gets if Message Ids are disabled for this Producer.

### Returns:

a boolean indicating state enable / disable (true / false) for MessageIds.

Implements **cms::MessageProducer** (p.2334).

**6.54.2.4** `virtual bool ac-`  
`tivemq::core::ActiveMQProducer::getDisableMessageTimeStamp () const`  
`throw ( cms::CMSEException )` [inline, virtual]

Gets if Message Time Stamps are disabled for this Producer.

### Returns:

boolean indicating state of enable / disable (true / false)

Implements **cms::MessageProducer** (p.2334).

**6.54.2.5** `virtual int activemq::core::ActiveMQProducer::getPriority () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the Priority level that this producer sends messages at.

**Returns:**

int based priority level

Implements `cms::MessageProducer` (p. 2334).

**6.54.2.6** `commands::ProducerId& activemq::core::ActiveMQProducer::getProducerId () const [inline]`

Retries this object ProducerId or NULL if closed.

**Returns:**

ProducerId Reference

**6.54.2.7** `const commands::ProducerInfo& activemq::core::ActiveMQProducer::getProducerInfo () const [inline]`

Retries this object ProducerInfo pointer.

**Returns:**

ProducerInfo Reference

**6.54.2.8** `virtual long long activemq::core::ActiveMQProducer::getSendTimeout () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the Send Timeout that this producer sends messages with.

**Returns:**

The default send timeout value in milliseconds.

**6.54.2.9** `virtual long long activemq::core::ActiveMQProducer::getTimeToLive () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the Time to Live that this producer sends messages with.

**Returns:**

The default time to live value in milliseconds.

Implements `cms::MessageProducer` (p. 2335).

#### 6.54.2.10 `bool activemq::core::ActiveMQProducer::isClosed () const [inline]`

##### Returns:

true if this Producer has been closed.

#### 6.54.2.11 `virtual void activemq::core::ActiveMQProducer::onProducerAck (const commands::ProducerAck & ack) [virtual]`

Handles the work of Processing a ProducerAck Command from the Broker.

##### Parameters:

*ack* - The ProducerAck message received from the Broker.

#### 6.54.2.12 `virtual void activemq::core::ActiveMQProducer::send (const cms::Destination * destination, cms::Message * message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [virtual]`

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.

##### Parameters:

*destination* The destination on which to send the message

*message* The message to be sent.

*deliveryMode* The delivery mode to be used.

*priority* The priority for this message.

*timeToLive* The time to live value for this message in milliseconds.

##### Exceptions:

*CMSException* - if an internal error occurs while sending the message.

*MessageFormatException* - if an Invalid Message is given.

*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.

*UnsupportedOperationException* - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements `cms::MessageProducer` (p. 2335).

#### 6.54.2.13 `virtual void activemq::core::ActiveMQProducer::send (const cms::Destination * destination, cms::Message * message) throw ( cms::CMSException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [virtual]`

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

*destination* The destination on which to send the message  
*message* the message to be sent.

**Exceptions:**

*CMSEException* - if an internal error occurs while sending the message.  
*MessageFormatException* - if an Invalid Message is given.  
*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.  
*UnsupportedOperationException* - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2335).

**6.54.2.14** `virtual void activemq::core::ActiveMQProducer::send (cms::Message * message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [virtual]`

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.

**Parameters:**

*message* The message to be sent.  
*deliveryMode* The delivery mode to be used.  
*priority* The priority for this message.  
*timeToLive* The time to live value for this message in milliseconds.

**Exceptions:**

*CMSEException* - if an internal error occurs while sending the message.  
*MessageFormatException* - if an Invalid Message is given.  
*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.  
*UnsupportedOperationException* - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2336).

**6.54.2.15** `virtual void activemq::core::ActiveMQProducer::send (cms::Message * message) throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [virtual]`

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

*message* - The message to be sent.

**Exceptions:**

*CMSEException* - if an internal error occurs while sending the message.

*MessageFormatException* - if an Invalid Message is given.

*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.

*UnsupportedOperationException* - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2336).

**6.54.2.16** `virtual void activemq::core::ActiveMQProducer::setDeliveryMode (int mode) throw ( cms::CMSEException ) [inline, virtual]`

Sets the delivery mode for this Producer.

**Parameters:**

*mode* - The DeliveryMode to use for Message sends.

Implements **cms::MessageProducer** (p. 2337).

**6.54.2.17** `virtual void activemq::core::ActiveMQProducer::setDisableMessageID (bool value) throw ( cms::CMSEException ) [inline, virtual]`

Sets if Message Ids are disabled for this Producer.

**Parameters:**

*value* - boolean indicating enable / disable (true / false)

Implements **cms::MessageProducer** (p. 2337).

**6.54.2.18** `virtual void activemq::core::ActiveMQProducer::setDisableMessageTimeStamp (bool value) throw ( cms::CMSEException ) [inline, virtual]`

Sets if Message Time Stamps are disabled for this Producer.

**Parameters:**

*value* - boolean indicating enable / disable (true / false)

Implements **cms::MessageProducer** (p. 2337).

**6.54.2.19** `virtual void activemq::core::ActiveMQProducer::setPriority (int priority) throw ( cms::CMSEException ) [inline, virtual]`

Sets the Priority that this Producers sends messages at.

**Parameters:**

*priority* int value for Priority level

Implements **cms::MessageProducer** (p. 2338).

**6.54.2.20 virtual void activemq::core::ActiveMQProducer::setSendTimeout (long long *time*) throw ( cms::CMSEException ) [inline, virtual]**

Sets the Send Timeout that this Producers sends messages with.

**Parameters:**

*time* The new default send timeout value in milliseconds.

**6.54.2.21 virtual void activemq::core::ActiveMQProducer::setTimeToLive (long long *time*) throw ( cms::CMSEException ) [inline, virtual]**

Sets the Time to Live that this Producers sends messages with.

**Parameters:**

*time* The new default time to live value in milliseconds.

Implements **cms::MessageProducer** (p. 2338).

The documentation for this class was generated from the following file:

- src/main/activemq/core/**ActiveMQProducer.h**

## 6.55 activemq::util::ActiveMQProperties Class Reference

Implementation of the CMSProperties interface that delegates to a **decaf::util::Properties** (p.2657) object.

#include <src/main/activemq/util/ActiveMQProperties.h> Inheritance diagram for activemq::util::ActiveMQProperties:

### Public Member Functions

- virtual **~ActiveMQProperties** ()
- virtual **decaf::util::Properties** & **getProperties** ()
- virtual const **decaf::util::Properties** & **getProperties** () const
- virtual void **setProperties** (decaf::util::Properties &props)
- virtual bool **isEmpty** () const  
*Returns true if the properties object is empty.*
- virtual const char \* **getProperty** (const std::string &name) const  
*Looks up the value for the given property.*
- virtual std::string **getProperty** (const std::string &name, const std::string &defaultValue) const  
*Looks up the value for the given property.*
- virtual void **setProperty** (const std::string &name, const std::string &value)  
*Sets the value for a given property.*
- virtual bool **hasProperty** (const std::string &name) const  
*Check to see if the Property exists in the set.*
- virtual void **remove** (const std::string &name)  
*Removes the property with the given name.*
- virtual std::vector< std::pair< std::string, std::string > > **toArray** () const  
*Method that serializes the contents of the property map to an arrayay.*
- virtual void **copy** (const CMSProperties \*source)  
*Copies the contents of the given properties object to this one.*
- virtual CMSProperties \* **clone** () const  
*Clones this object.*
- virtual void **clear** ()  
*Clears all properties from the map.*
- virtual std::string **toString** () const  
*Formats the contents of the Properties Object into a string that can be logged, etc.*



### 6.55.1 Detailed Description

Implementation of the CMSProperties interface that delegates to a **decaf::util::Properties** (p. 2657) object.

**Since:**

2.0

### 6.55.2 Constructor & Destructor Documentation

**6.55.2.1** `virtual activemq::util::ActiveMQProperties::~~ActiveMQProperties ()`  
[virtual]

### 6.55.3 Member Function Documentation

**6.55.3.1** `virtual void activemq::util::ActiveMQProperties::clear ()` [inline,  
virtual]

Clears all properties from the map.

Implements **cms::CMSProperties** (p. 1037).

**6.55.3.2** `virtual CMSProperties* activemq::util::ActiveMQProperties::clone ()`  
`const` [virtual]

Clones this object.

**Returns:**

a replica of this object.

Implements **cms::CMSProperties** (p. 1037).

**6.55.3.3** `virtual void activemq::util::ActiveMQProperties::copy (const`  
`CMSProperties * source)` [virtual]

Copies the contents of the given properties object to this one.

**Parameters:**

*source* The source properties object.

**6.55.3.4** `virtual const decaf::util::Properties& activemq::util::ActiveMQProperties::getProperties () const` [inline, virtual]

**6.55.3.5** `virtual decaf::util::Properties& activemq::util::ActiveMQProperties::getProperties ()` [inline, virtual]

**6.55.3.6** `virtual std::string activemq::util::ActiveMQProperties::getProperty (const std::string & name, const std::string & defaultValue) const` [inline, virtual]

Looks up the value for the given property.

**Parameters:**

*name* the name of the property to be looked up.

*defaultValue* The value to be returned if the given property does not exist.

**Returns:**

The value of the property specified by *name*, if it exists, otherwise the *defaultValue*.

Implements **cms::CMSProperties** (p. 1037).

**6.55.3.7** `virtual const char* activemq::util::ActiveMQProperties::getProperty (const std::string & name) const` [inline, virtual]

Looks up the value for the given property.

**Parameters:**

*name* The name of the property to be looked up.

**Returns:**

the value of the property with the given name, if it exists. If it does not exist, returns NULL.

Implements **cms::CMSProperties** (p. 1038).

**6.55.3.8** `virtual bool activemq::util::ActiveMQProperties::hasProperty (const std::string & name) const` [inline, virtual]

Check to see if the Property exists in the set.

**Parameters:**

*name* - property name to check for in this properties set.

**Returns:**

true if property exists, false otherwise.

Implements **cms::CMSProperties** (p. 1038).

**6.55.3.9 virtual bool activemq::util::ActiveMQProperties::isEmpty () const**  
[inline, virtual]

Returns true if the properties object is empty.

**Returns:**

true if empty

Implements **cms::CMSProperties** (p. 1038).

**6.55.3.10 virtual void activemq::util::ActiveMQProperties::remove (const std::string & name)** [inline, virtual]

Removes the property with the given name.

**Parameters:**

*name* the name of the property to remove.

Implements **cms::CMSProperties** (p. 1038).

**6.55.3.11 virtual void activemq::util::ActiveMQProperties::setProperties (decaf::util::Properties & props)** [inline, virtual]**6.55.3.12 virtual void activemq::util::ActiveMQProperties::setProperty (const std::string & name, const std::string & value)** [inline, virtual]

Sets the value for a given property. If the property already exists, overwrites the value.

**Parameters:**

*name* The name of the value to be written.

*value* The value to be written.

Implements **cms::CMSProperties** (p. 1039).

**6.55.3.13 virtual std::vector< std::pair< std::string, std::string > > activemq::util::ActiveMQProperties::toArray () const** [inline, virtual]

Method that serializes the contents of the property map to an array.

**Returns:**

list of pairs where the first is the name and the second is the value.

Implements **cms::CMSProperties** (p. 1039).

**6.55.3.14 virtual std::string activemq::util::ActiveMQProperties::toString () const**  
[inline, virtual]

Formats the contents of the Properties Object into a string that can be logged, etc.

**Returns:**

string value of this object.

Implements **cms::CMSProperties** (p. 1039).

The documentation for this class was generated from the following file:

- src/main/activemq/util/**ActiveMQProperties.h**

## 6.56 activemq::commands::ActiveMQQueue Class Reference

#include <src/main/activemq/commands/ActiveMQQueue.h> Inheritance diagram for activemq::commands::ActiveMQQueue:

### Public Member Functions

- **ActiveMQQueue** ()
- **ActiveMQQueue** (const std::string &name)
- virtual ~**ActiveMQQueue** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **ActiveMQQueue** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const cms::Destination \* **getCMSDestination** () const
- virtual cms::Destination::DestinationType **getDestinationType** () const  
*Retrieve the Destination Type for this Destination.*
- virtual cms::Destination \* **clone** () const  
*Creates a new instance of this destination type that is a copy of this one, and returns it.*
- virtual void **copy** (const cms::Destination &source)  
*Copies the contents of the given Destinastion object to this one.*
- virtual const cms::CMSProperties & **getCMSProperties** () const  
*Retrieve any properties that might be part of the destination that was specified.*
- virtual std::string **getQueueName** () const throw ( cms::CMSException )  
*Gets the name of this queue.*

### Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQQUEUE** = 100

## 6.56.1 Constructor & Destructor Documentation

**6.56.1.1** `activemq::commands::ActiveMQQueue::ActiveMQQueue ()`

**6.56.1.2** `activemq::commands::ActiveMQQueue::ActiveMQQueue (const std::string & name)`

**6.56.1.3** `virtual activemq::commands::ActiveMQQueue::~~ActiveMQQueue ()`  
[inline, virtual]

## 6.56.2 Member Function Documentation

**6.56.2.1** `virtual cms::Destination* activemq::commands::ActiveMQQueue::clone ()`  
`const` [inline, virtual]

Creates a new instance of this destination type that is a copy of this one, and returns it.

### Returns:

cloned copy of this object

Implements **cms::Destination** (p. 1481).

**6.56.2.2** `virtual ActiveMQQueue* activemq::commands::ActiveMQQueue::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from **activemq::commands::ActiveMQDestination** (p. 276).

**6.56.2.3** `virtual void activemq::commands::ActiveMQQueue::copy (const cms::Destination & source)` [inline, virtual]

Copies the contents of the given Destination object to this one.

### Parameters:

***source*** The source Destination object.

Implements **cms::Destination** (p. 1481).

**6.56.2.4** `virtual void activemq::commands::ActiveMQQueue::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

### Returns:

src - Source Object

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 277).

**6.56.2.5** `virtual bool activemq::commands::ActiveMQQueue::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.56.2.6** `virtual const cms::Destination* activemq::commands::ActiveMQQueue::getCMSDestination () const [inline, virtual]`

**Returns:**

the `cms::Destination` (p. 1480) interface pointer that the objects that derive from this class implement.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.56.2.7** `virtual const cms::CMSProperties& activemq::commands::ActiveMQQueue::getCMSProperties () const [inline, virtual]`

Retrieve any properties that might be part of the destination that was specified. This is a deviation from the JMS spec but necessary due to C++ restrictions.

**Returns:**

const reference to a properties object.

Implements `cms::Destination` (p. 1481).

**6.56.2.8** `virtual unsigned char activemq::commands::ActiveMQQueue::getDataStructureType () const [virtual]`

Get the `DataStructure` (p. 1461) Type as defined in `CommandTypes.h`.

**Returns:**

The type of the data structure

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.56.2.9** `virtual cms::Destination::DestinationType activemq::commands::ActiveMQQueue::getDestinationType () const [inline, virtual]`

Retrieve the Destination Type for this Destination.

**Returns:**

The Destination Type

Implements `activemq::commands::ActiveMQDestination` (p. 279).

References `cms::Destination::QUEUE`.

**6.56.2.10** `virtual std::string activemq::commands::ActiveMQQueue::getQueueName () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the name of this queue.

**Returns:**

The queue name.

Implements `cms::Queue` (p. 2674).

**6.56.2.11** `virtual std::string activemq::commands::ActiveMQQueue::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 282).

## 6.56.3 Field Documentation

**6.56.3.1** `const unsigned char activemq::commands::ActiveMQQueue::ID_ - ACTIVEMQQUEUE = 100 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQQueue.h`



## 6.57 activemq:wireformat::openwire::marshal:v3::ActiveMQQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 423).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQQueueMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v3::ActiveMQQueueMarshaller:

### Public Member Functions

- **ActiveMQQueueMarshaller** ()
- virtual **~ActiveMQQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.57.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 423). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.57.2 Constructor & Destructor Documentation

**6.57.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::ActiveMQQueueMarshaller()` [inline]

**6.57.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::~~ActiveMQQueueMarshaller()` [inline, virtual]

## 6.57.3 Member Function Documentation

**6.57.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.57.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.57.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller** (p. 286).

**6.57.3.4 virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller** (p. 286).

**6.57.3.5 virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::tightMarshal1** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller** (p. 287).

```

6.57.3.6 virtual void ac-
tivemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::tightMarshal2
(OpenWireFormat * wireFormat, commands::DataStructure
* dataStructure, decaf::io::DataOutputStream * dataOut,
utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 287).

```

6.57.3.7 virtual void ac-
tivemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller::tightUnmarshal
(OpenWireFormat * wireFormat, commands::DataStructure *
dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
* bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 288).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQQueueMarshaller.h`

## 6.58 activemq:wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 427).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQQueueMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller:

### Public Member Functions

- **ActiveMQQueueMarshaller** ()
- virtual **~ActiveMQQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.58.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 427). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.58.2 Constructor & Destructor Documentation

**6.58.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::ActiveMQQueueMarshaller()` [inline]

**6.58.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::~~ActiveMQQueueMarshaller()` [inline, virtual]

## 6.58.3 Member Function Documentation

**6.58.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.58.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.58.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 290).

**6.58.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 290).

**6.58.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291).

```

6.58.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291).

```

6.58.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 292).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQQueueMarshaller.h`



## 6.59 activemq:wireformat::openwire::marshal:v4::ActiveMQQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 431).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQQueueMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v4::ActiveMQQueueMarshaller:

### Public Member Functions

- **ActiveMQQueueMarshaller** ()
- virtual **~ActiveMQQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.59.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 431). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.59.2 Constructor & Destructor Documentation

**6.59.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::ActiveMQQueueMarshaller()` [inline]

**6.59.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::~~ActiveMQQueueMarshaller()` [inline, virtual]

## 6.59.3 Member Function Documentation

**6.59.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.59.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.59.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller** (p. 294).

**6.59.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller** (p. 294).

**6.59.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller** (p. 295).

```

6.59.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 295).

```

6.59.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 296).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQQueueMarshaller.h`

## 6.60 activemq:wireformat::openwire::marshal:v5::ActiveMQQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 435).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQQueueMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v5::ActiveMQQueueMarshaller:

### Public Member Functions

- **ActiveMQQueueMarshaller** ()
- virtual **~ActiveMQQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.60.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 435). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.60.2 Constructor & Destructor Documentation

**6.60.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::ActiveMQQueueMarshaller()` [inline]

**6.60.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::~~ActiveMQQueueMarshaller()` [inline, virtual]

## 6.60.3 Member Function Documentation

**6.60.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.60.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.60.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller** (p. 298).

**6.60.3.4 virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller** (p. 298).

**6.60.3.5 virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::tightMarshal1** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller** (p. 299).

```

6.60.3.6 virtual void ac-
tivemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::tightMarshal2
(OpenWireFormat * wireFormat, commands::DataStructure
* dataStructure, decaf::io::DataOutputStream * dataOut,
utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 299).

```

6.60.3.7 virtual void ac-
tivemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller::tightUnmarshal
(OpenWireFormat * wireFormat, commands::DataStructure *
dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
* bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 300).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQQueueMarshaller.h`



## 6.61 activemq:wireformat::openwire::marshal:v2::ActiveMQQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 439).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQQueueMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal:v2::ActiveMQQueueMarshaller:

### Public Member Functions

- **ActiveMQQueueMarshaller** ()
- virtual **~ActiveMQQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.61.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 439). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.61.2 Constructor & Destructor Documentation

**6.61.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::ActiveMQQueueMarshaller()` [inline]

**6.61.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::~~ActiveMQQueueMarshaller()` [inline, virtual]

## 6.61.3 Member Function Documentation

**6.61.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.61.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.61.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller** (p. 302).

**6.61.3.4 virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller** (p. 302).

**6.61.3.5 virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::tightMarshal1** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller** (p. 303).

```

6.61.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 303).

```

6.61.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 304).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQQueueMarshaller.h`

## 6.62 activemq::core::ActiveMQSession Class Reference

#include <src/main/activemq/core/ActiveMQSession.h> Inheritance diagram for activemq::core::ActiveMQSession:

### Public Member Functions

- **ActiveMQSession** (const **Pointer**< **commands::SessionInfo** > &sessionInfo, **cms::Session::AcknowledgeMode** ackMode, const **decaf::util::Properties** &properties, **ActiveMQConnection** \*connection)
- virtual **~ActiveMQSession** ()
- void **redispatch** (**MessageDispatchChannel** &unconsumedMessages)  
*Redispatches the given set of unconsumed messages to the consumers.*
- void **start** ()  
*Stops asynchronous message delivery.*
- void **stop** ()  
*Starts asynchronous message delivery.*
- bool **isStarted** () const  
*Indicates whether or not the session is currently in the started state.*
- bool **isAutoAcknowledge** () const
- bool **isDupsOkAcknowledge** () const
- bool **isClientAcknowledge** () const
- bool **isIndividualAcknowledge** () const
- void **fire** (const **exceptions::ActiveMQException** &ex)  
*Fires the given exception to the exception listener of the connection.*
- virtual void **dispatch** (const **Pointer**< **MessageDispatch** > &message)  
*Dispatches a message to a particular consumer.*
- virtual void **close** () throw ( **cms::CMSEException** )  
*Closes this session as well as any active child consumers or producers.*
- virtual void **commit** () throw ( **cms::CMSEException** )  
*Commits all messages done in this transaction and releases any locks currently held.*
- virtual void **rollback** () throw ( **cms::CMSEException** )  
*Rollsback all messages done in this transaction and releases any locks currently held.*
- virtual void **recover** () throw ( **cms::CMSEException** )  
*Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message.*
- virtual **cms::MessageConsumer** \* **createConsumer** (const **cms::Destination** \*destination) throw ( **cms::CMSEException** )

*Creates a MessageConsumer for the specified destination.*

- virtual **cms::MessageConsumer** \* **createConsumer** (const **cms::Destination** \*destination, const std::string &selector) throw ( cms::CMSEException )

*Creates a MessageConsumer for the specified destination, using a message selector.*

- virtual **cms::MessageConsumer** \* **createConsumer** (const **cms::Destination** \*destination, const std::string &selector, bool noLocal) throw ( cms::CMSEException )

*Creates a MessageConsumer for the specified destination, using a message selector.*

- virtual **cms::MessageConsumer** \* **createDurableConsumer** (const **cms::Topic** \*destination, const std::string &name, const std::string &selector, bool noLocal=false) throw ( cms::CMSEException )

*Creates a durable subscriber to the specified topic, using a message selector.*

- virtual **cms::MessageProducer** \* **createProducer** (const **cms::Destination** \*destination) throw ( cms::CMSEException )

*Creates a MessageProducer to send messages to the specified destination.*

- virtual **cms::QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue) throw ( cms::CMSEException )

*Creates a new QueueBrowser to peek at Messages on the given Queue.*

- virtual **cms::QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue, const std::string &selector) throw ( cms::CMSEException )

*Creates a new QueueBrowser to peek at Messages on the given Queue.*

- virtual **cms::Queue** \* **createQueue** (const std::string &queueName) throw ( cms::CMSEException )

*Creates a queue identity given a Queue name.*

- virtual **cms::Topic** \* **createTopic** (const std::string &topicName) throw ( cms::CMSEException )

*Creates a topic identity given a Queue name.*

- virtual **cms::TemporaryQueue** \* **createTemporaryQueue** () throw ( cms::CMSEException )

*Creates a TemporaryQueue object.*

- virtual **cms::TemporaryTopic** \* **createTemporaryTopic** () throw ( cms::CMSEException )

*Creates a TemporaryTopic object.*

- virtual **cms::Message** \* **createMessage** () throw ( cms::CMSEException )

*Creates a new Message.*

- virtual **cms::BytesMessage** \* **createBytesMessage** () throw ( cms::CMSEException )

*Creates a BytesMessage.*

- virtual **cms::BytesMessage** \* **createBytesMessage** (const unsigned char \*bytes, std::size\_t bytesSize) throw ( cms::CMSEException )  
*Creates a BytesMessage and sets the pay-load to the passed value.*
- virtual **cms::StreamMessage** \* **createStreamMessage** () throw ( cms::CMSEException )  
*Creates a new StreamMessage.*
- virtual **cms::TextMessage** \* **createTextMessage** () throw ( cms::CMSEException )  
*Creates a new TextMessage.*
- virtual **cms::TextMessage** \* **createTextMessage** (const std::string &text) throw ( cms::CMSEException )  
*Creates a new TextMessage and set the text to the value given.*
- virtual **cms::MapMessage** \* **createMapMessage** () throw ( cms::CMSEException )  
*Creates a new MapMessage.*
- virtual **cms::Session::AcknowledgeMode** **getAcknowledgeMode** () const throw ( cms::CMSEException )  
*Returns the acknowledgment mode of the session.*
- virtual bool **isTransacted** () const throw ( cms::CMSEException )  
*Gets if the Sessions is a Transacted Session.*
- virtual void **unsubscribe** (const std::string &name) throw ( cms::CMSEException )  
*Unsubscribes a durable subscription that has been created by a client.*
- void **send** (cms::Message \*message, ActiveMQProducer \*producer, util::Usage \*usage) throw ( cms::CMSEException )  
*Sends a message from the Producer specified using this session's connection the message will be sent using the best available means depending on the configuration of the connection.*
- **cms::ExceptionListener** \* **getExceptionListener** ()  
*This method gets any registered exception listener of this sessions connection and returns it.*
- const **commands::SessionInfo** & **getSessionInfo** () const  
*Gets the Session Information object for this session, if the session is closed than this method throws an exception.*
- const **commands::SessionId** & **getSessionId** () const  
*Gets the Session Id object for this session, if the session is closed than this method throws an exception.*
- **ActiveMQConnection** \* **getConnection** () const  
*Gets the **ActiveMQConnection** (p. 233) that is associated with this session.*
- long long **getLastDeliveredSequenceId** () const  
*Gets the currently set Last Delivered Sequence Id.*
- void **setLastDeliveredSequenceId** (long long value)

*Sets the value of the Last Delivered Sequence Id.*

- void **oneway** (**Pointer**< **commands::Command** > command) throw ( **activemq::exceptions::ActiveMQException** )

*Sends a oneway message.*

- void **syncRequest** (**Pointer**< **commands::Command** > command, unsigned int timeout=0) throw ( **activemq::exceptions::ActiveMQException** )

*Sends a synchronous request and returns the response from the broker.*

- void **disposeOf** (**decaf::lang::Pointer**< **commands::ConsumerId** > id, long long last-DeliveredSequenceId) throw ( **activemq::exceptions::ActiveMQException** )

*Dispose of a Consumer from this session.*

- void **disposeOf** (**decaf::lang::Pointer**< **commands::ProducerId** > id) throw ( **activemq::exceptions::ActiveMQException** )

*Dispose of a Producer from this session.*

- void **doStartTransaction** () throw ( **exceptions::ActiveMQException** )

*Starts if not already start a Transaction for this Session.*

- void **acknowledge** ()

*Request that the Session inform all its consumers to Acknowledge all Message's that have been received so far.*

- void **deliverAcks** ()

*Request that this Session inform all of its consumers to deliver their pending acks.*

- void **clearMessagesInProgress** ()

*Request that this Session inform all of its consumers to clear all messages that are currently in progress.*

- void **wakeup** ()

*Causes the Session to wakeup its executor and ensure all messages are dispatched.*

## Friends

- class **ActiveMQSessionExecutor**



## 6.62.1 Constructor & Destructor Documentation

**6.62.1.1** `activemq::core::ActiveMQSession::ActiveMQSession (const Pointer< commands::SessionInfo > & sessionInfo, cms::Session::AcknowledgeMode ackMode, const decaf::util::Properties & properties, ActiveMQConnection * connection)`

**6.62.1.2** `virtual activemq::core::ActiveMQSession::~~ActiveMQSession ()` [virtual]

## 6.62.2 Member Function Documentation

**6.62.2.1** `void activemq::core::ActiveMQSession::acknowledge ()`

Request that the Session inform all its consumers to Acknowledge all Message's that have been received so far.

**6.62.2.2** `void activemq::core::ActiveMQSession::clearMessagesInProgress ()`

Request that this Session inform all of its consumers to clear all messages that are currently in progress.

**6.62.2.3** `virtual void activemq::core::ActiveMQSession::close () throw ( cms::CMSException )` [virtual]

Closes this session as well as any active child consumers or producers.

### Exceptions:

*CMSException*

Implements `cms::Session` (p. 2842).

**6.62.2.4** `virtual void activemq::core::ActiveMQSession::commit () throw ( cms::CMSException )` [virtual]

Commits all messages done in this transaction and releases any locks currently held.

### Exceptions:

*CMSException*

Implements `cms::Session` (p. 2843).

**6.62.2.5** `virtual cms::QueueBrowser* activemq::core::ActiveMQSession::createBrowser (const cms::Queue * queue, const std::string & selector) throw ( cms::CMSException )` [virtual]

Creates a new QueueBrowser to peek at Messages on the given Queue.

### Parameters:

*queue* the Queue to browse

*selector* the Message selector to filter which messages are browsed.

**Returns:**

New QueueBrowser that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if the destination given is invalid.

Implements **cms::Session** (p. 2843).

**6.62.2.6** `virtual cms::QueueBrowser* activemq::core::ActiveMQSession::createBrowser (const cms::Queue * queue) throw ( cms::CMSEException ) [virtual]`

Creates a new QueueBrowser to peek at Messages on the given Queue.

**Parameters:**

*queue* the Queue to browse

**Returns:**

New QueueBrowser that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if the destination given is invalid.

Implements **cms::Session** (p. 2843).

**6.62.2.7** `virtual cms::BytesMessage* activemq::core::ActiveMQSession::createBytesMessage (const unsigned char * bytes, std::size_t bytesSize) throw ( cms::CMSEException ) [virtual]`

Creates a BytesMessage and sets the pay-load to the passed value.

**Parameters:**

*bytes* - an array of bytes to set in the message

*bytesSize* - the size of the bytes array, or number of bytes to use

**Returns:**

a newly created BytesMessage.

**Exceptions:**

*CMSEException*

Implements **cms::Session** (p. 2844).

**6.62.2.8** `virtual cms::BytesMessage* activemq::core::ActiveMQSession::createBytesMessage () throw ( cms::CMSException ) [virtual]`

Creates a BytesMessage.

**Returns:**

a newly created BytesMessage.

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2844).

**6.62.2.9** `virtual cms::MessageConsumer* activemq::core::ActiveMQSession::createConsumer (const cms::Destination * destination, const std::string & selector, bool noLocal) throw ( cms::CMSException ) [virtual]`

Creates a MessageConsumer for the specified destination, using a message selector.

**Parameters:**

*destination* - The Destination that this consumer receiving messages for.

*selector* - The Message Selector string to use for this destination

*noLocal* - if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2844).

**6.62.2.10** `virtual cms::MessageConsumer* activemq::core::ActiveMQSession::createConsumer (const cms::Destination * destination, const std::string & selector) throw ( cms::CMSException ) [virtual]`

Creates a MessageConsumer for the specified destination, using a message selector.

**Parameters:**

*destination* - The Destination that this consumer receiving messages for.

*selector* - The Message Selector string to use for this destination

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2845).

**6.62.2.11** `virtual cms::MessageConsumer* activemq::core::ActiveMQSession::createConsumer (const cms::Destination * destination) throw ( cms::CMSException ) [virtual]`

Creates a MessageConsumer for the specified destination.

**Parameters:**

*destination* - The Destination that this consumer receiving messages for.

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2845).

**6.62.2.12** `virtual cms::MessageConsumer* activemq::core::ActiveMQSession::createDurableConsumer (const cms::Topic * destination, const std::string & name, const std::string & selector, bool noLocal = false) throw ( cms::CMSException ) [virtual]`

Creates a durable subscriber to the specified topic, using a message selector.

**Parameters:**

*destination* - the topic to subscribe to

*name* - The name used to identify the subscription

*selector* - only messages matching the selector are received

*noLocal* - if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2846).

**6.62.2.13** `virtual cms::MapMessage* activemq::core::ActiveMQSession::createMapMessage () throw ( cms::CMSException ) [virtual]`

Creates a new MapMessage.

**Returns:**

a newly created MapMessage.

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2846).

**6.62.2.14** `virtual cms::Message* activemq::core::ActiveMQSession::createMessage  
( ) throw ( cms::CMSException ) [virtual]`

Creates a new Message.

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2847).

**6.62.2.15** `virtual cms::MessageProducer* ac-  
tivismq::core::ActiveMQSession::createProducer (const  
cms::Destination * destination) throw ( cms::CMSException ) [virtual]`

Creates a MessageProducer to send messages to the specified destination.

**Parameters:**

*destination* - the Destination to publish on

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2847).

**6.62.2.16** `virtual cms::Queue* activemq::core::ActiveMQSession::createQueue  
(const std::string & queueName) throw ( cms::CMSException )  
[virtual]`

Creates a queue identity given a Queue name.

**Parameters:**

*queueName* - the name of the new Queue

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2847).

**6.62.2.17** `virtual cms::StreamMessage* ac-  
tivismq::core::ActiveMQSession::createStreamMessage ( )  
throw ( cms::CMSException ) [virtual]`

Creates a new StreamMessage.

**Returns:**

a newly created StreamMessage.

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2848).

**6.62.2.18** `virtual cms::TemporaryQueue* activemq::core::ActiveMQSession::createTemporaryQueue () throw ( cms::CMSException ) [virtual]`

Creates a TemporaryQueue object.

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2848).

**6.62.2.19** `virtual cms::TemporaryTopic* activemq::core::ActiveMQSession::createTemporaryTopic () throw ( cms::CMSException ) [virtual]`

Creates a TemporaryTopic object.

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2848).

**6.62.2.20** `virtual cms::TextMessage* activemq::core::ActiveMQSession::createTextMessage (const std::string & text) throw ( cms::CMSException ) [virtual]`

Creates a new TextMessage and set the text to the value given.

**Parameters:**

*text* - The initial text for the message

**Returns:**

a newly created TextMessage with the given Text set in the Message body.

**Exceptions:**

*CMSException*

Implements **cms::Session** (p. 2848).

**6.62.2.21** `virtual cms::TextMessage* activemq::core::ActiveMQSession::createTextMessage () throw ( cms::CMSException ) [virtual]`

Creates a new TextMessage.

**Returns:**

a newly created `TextMessage`.

**Exceptions:**

*CMSEException*

Implements `cms::Session` (p. 2849).

**6.62.2.22** `virtual cms::Topic* activemq::core::ActiveMQSession::createTopic (const std::string & topicName) throw ( cms::CMSEException ) [virtual]`

Creates a topic identity given a Queue name.

**Parameters:**

*topicName* - the name of the new Topic

**Exceptions:**

*CMSEException*

Implements `cms::Session` (p. 2849).

**6.62.2.23** `void activemq::core::ActiveMQSession::deliverAcks ()`

Request that this Session inform all of its consumers to deliver their pending acks.

**6.62.2.24** `virtual void activemq::core::ActiveMQSession::dispatch (const Pointer< MessageDispatch > & message) [virtual]`

Dispatches a message to a particular consumer.

**Parameters:**

*message* - the message to be dispatched

Implements `activemq::core::Dispatcher` (p. 1536).

**6.62.2.25** `void activemq::core::ActiveMQSession::disposeOf (decaf::lang::Pointer< commands::ProducerId > id) throw ( activemq::exceptions::ActiveMQException )`

Dispose of a Producer from this session. Removes it from the Connection and clean up any resources associated with it.

**Parameters:**

*id* - the Id of the Producer to dispose.

**Exceptions:**

*ActiveMQException* if an internal error occurs.

**6.62.2.26** `void activemq::core::ActiveMQSession::disposeOf (decaf::lang::Pointer< commands::ConsumerId > id, long long lastDeliveredSequenceId) throw ( activemq::exceptions::ActiveMQException )`

Dispose of a Consumer from this session. Removes it from the Connection and clean up any resources associated with it.

**Parameters:**

*id* The Id of the Consumer to dispose.

*lastDeliveredSequenceId* The Broker Sequence Id of the last message the Consumer delivered.

**Exceptions:**

*ActiveMQException* if an internal error occurs.

**6.62.2.27** `void activemq::core::ActiveMQSession::doStartTransaction () throw ( exceptions::ActiveMQException )`

Starts if not already start a Transaction for this Session. If the session is not a Transacted Session then an exception is thrown. If a transaction is already in progress then this method has no effect.

**Exceptions:**

*ActiveMQException* if this is not a Transacted Session.

**6.62.2.28** `void activemq::core::ActiveMQSession::fire (const exceptions::ActiveMQException & ex)`

Fires the given exception to the exception listener of the connection.

**6.62.2.29** `virtual cms::Session::AcknowledgeMode activemq::core::ActiveMQSession::getAcknowledgeMode () const throw ( cms::CMSException ) [virtual]`

Returns the acknowledgment mode of the session.

**Returns:**

the Sessions Acknowledge Mode

Implements `cms::Session` (p. 2849).

**6.62.2.30** `ActiveMQConnection* activemq::core::ActiveMQSession::getConnection () const [inline]`

Gets the `ActiveMQConnection` (p. 233) that is associated with this session.



**6.62.2.31** `cms::ExceptionListener* activemq::core::ActiveMQSession::getExceptionListener()`

This method gets any registered exception listener of this sessions connection and returns it. Mainly intended for use by the objects that this session creates so that they can notify the client of exceptions that occur in the context of another thread.

**Returns:**

`cms::ExceptionListener` (p. 1581) pointer or NULL

**6.62.2.32** `long long activemq::core::ActiveMQSession::getLastDeliveredSequenceId() const [inline]`

Gets the currently set Last Delivered Sequence Id.

**Returns:**

long long containing the sequence id of the last delivered Message.

**6.62.2.33** `const commands::SessionId& activemq::core::ActiveMQSession::getSessionId() const [inline]`

Gets the Session Id object for this session, if the session is closed than this method throws an exception.

**Returns:**

SessionId Reference

**6.62.2.34** `const commands::SessionInfo& activemq::core::ActiveMQSession::getSessionInfo() const [inline]`

Gets the Session Information object for this session, if the session is closed than this method throws an exception.

**Returns:**

SessionInfo Reference

**6.62.2.35** `bool activemq::core::ActiveMQSession::isAutoAcknowledge() const [inline]`

References `cms::Session::AUTO_ACKNOWLEDGE`.

**6.62.2.36** `bool activemq::core::ActiveMQSession::isClientAcknowledge() const [inline]`

References `cms::Session::CLIENT_ACKNOWLEDGE`.

**6.62.2.37** `bool activemq::core::ActiveMQSession::isDupsOkAcknowledge () const [inline]`

References `cms::Session::DUPS_OK_ACKNOWLEDGE`.

**6.62.2.38** `bool activemq::core::ActiveMQSession::isIndividualAcknowledge () const [inline]`

References `cms::Session::INDIVIDUAL_ACKNOWLEDGE`.

**6.62.2.39** `bool activemq::core::ActiveMQSession::isStarted () const`

Indicates whether or not the session is currently in the started state.

**6.62.2.40** `virtual bool activemq::core::ActiveMQSession::isTransacted () const throw ( cms::CMSEException ) [virtual]`

Gets if the Sessions is a Transacted Session.

**Returns:**

transacted true - false.

Implements `cms::Session` (p. 2850).

**6.62.2.41** `void activemq::core::ActiveMQSession::oneway (Pointer< commands::Command > command) throw ( activemq::exceptions::ActiveMQException )`

Sends a oneway message.

**Parameters:**

*command* The message to send.

**Exceptions:**

*ActiveMQException* if not currently connected, or if the operation fails for any reason.

**6.62.2.42** `virtual void activemq::core::ActiveMQSession::recover () throw ( cms::CMSEException ) [virtual]`

Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message. All consumers deliver messages in a serial order. Acknowledging a received message automatically acknowledges all messages that have been delivered to the client.

Restarting a session causes it to take the following actions:

- Stop message delivery
- Mark all messages that might have been delivered but not acknowledged as "redelivered"

- Restart the delivery sequence including all unacknowledged messages that had been previously delivered. Redelivered messages do not have to be delivered in exactly their original delivery order.

**Exceptions:**

*CMSEException* - if the CMS provider fails to stop and restart message delivery due to some internal error.

*IllegalStateException* - if the method is called by a transacted session.

Implements **cms::Session** (p. 2850).

#### 6.62.2.43 void activemq::core::ActiveMQSession::redispatch (MessageDispatchChannel & *unconsumedMessages*)

Redispatches the given set of unconsumed messages to the consumers.

**Parameters:**

*unconsumedMessages* - unconsumed messages to be redelivered.

#### 6.62.2.44 virtual void activemq::core::ActiveMQSession::rollback () throw ( cms::CMSEException ) [virtual]

Rollsback all messages done in this transaction and releases any locks currently held.

**Exceptions:**

*CMSEException*

Implements **cms::Session** (p. 2850).

#### 6.62.2.45 void activemq::core::ActiveMQSession::send (cms::Message \* *message*, ActiveMQProducer \* *producer*, util::Usage \* *usage*) throw ( cms::CMSEException )

Sends a message from the Producer specified using this session's connection the message will be sent using the best available means depending on the configuration of the connection. Asynchronous sends will be chosen if at all possible.

**Parameters:**

*message* The message to send to the broker.

*producer* The sending Producer

*usage* Pointer to a Usage tracker which if set will be increased by the size of the given message.

**Exceptions:**

*CMSEException*

**6.62.2.46** `void activemq::core::ActiveMQSession::setLastDeliveredSequenceId (long long value) [inline]`

Sets the value of the Last Delivered Sequence Id.

**Parameters:**

*value* The new value to assign to the Last Delivered Sequence Id property.

**6.62.2.47** `void activemq::core::ActiveMQSession::start ()`

Stops asynchronous message delivery.

**6.62.2.48** `void activemq::core::ActiveMQSession::stop ()`

Starts asynchronous message delivery.

**6.62.2.49** `void activemq::core::ActiveMQSession::syncRequest (Pointer< commands::Command > command, unsigned int timeout = 0) throw ( activemq::exceptions::ActiveMQException )`

Sends a synchronous request and returns the response from the broker. Converts any error responses into an exception.

**Parameters:**

*command* The request command.

*timeout* The time to wait for a response, default is zero or infinite.

**Exceptions:**

*ActiveMQException* thrown if an error response was received from the broker, or if any other error occurred.

**6.62.2.50** `virtual void activemq::core::ActiveMQSession::unsubscribe (const std::string & name) throw ( cms::CMSException ) [virtual]`

Unsubscribes a durable subscription that has been created by a client. This method deletes the state being maintained on behalf of the subscriber by its provider. It is erroneous for a client to delete a durable subscription while there is an active MessageConsumer or Subscriber for the subscription, or while a consumed message is part of a pending transaction or has not been acknowledged in the session.

**Parameters:**

*name* the name used to identify this subscription

**Exceptions:**

*CMSException*

Implements `cms::Session` (p. 2851).

#### 6.62.2.51 void activemq::core::ActiveMQSession::wakeup ()

Causes the Session to wakeup its executor and ensure all messages are dispatched.

### 6.62.3 Friends And Related Function Documentation

#### 6.62.3.1 friend class ActiveMQSessionExecutor [friend]

The documentation for this class was generated from the following file:

- src/main/activemq/core/**ActiveMQSession.h**

## 6.63 activemq::core::ActiveMQSessionExecutor Class Reference

Delegate dispatcher for a single session.

#include <src/main/activemq/core/ActiveMQSessionExecutor.h> Inheritance diagram for activemq::core::ActiveMQSessionExecutor:

### Public Member Functions

- **ActiveMQSessionExecutor** (**ActiveMQSession** \*session)  
*Creates an un-started executor for the given session.*
- virtual **~ActiveMQSessionExecutor** ()  
*Calls **stop()** (p. 463) then **clear()** (p. 461).*
- virtual void **execute** (const **Pointer**< **MessageDispatch** > &data)  
*Executes the dispatch.*
- virtual void **executeFirst** (const **Pointer**< **MessageDispatch** > &data)  
*Executes the dispatch.*
- virtual void **clearMessagesInProgress** ()  
*Removes all messages in the Dispatch Channel so that non are delivered.*
- virtual bool **hasUnconsumedMessages** () const
- virtual void **wakeup** ()  
*wakeup this executor and dispatch any pending messages.*
- virtual void **start** ()  
*Starts the dispatching.*
- virtual void **stop** ()  
*Stops dispatching.*
- virtual void **close** ()  
*Terminates the dispatching thread.*
- virtual bool **isRunning** () const
- virtual bool **isEmpty** ()
- virtual void **clear** ()  
*Removes all queued messages and destroys them.*
- virtual bool **iterate** ()  
*Iterates on the **MessageDispatchChannel** (p. 2224) sending all pending messages to the Consumers they are destined for.*
- std::vector< **Pointer**< **MessageDispatch** > > **getUnconsumedMessages** ()

### 6.63.1 Detailed Description

Delegate dispatcher for a single session. Contains a thread to provide for asynchronous dispatching.

### 6.63.2 Constructor & Destructor Documentation

#### 6.63.2.1 **activemq::core::ActiveMQSessionExecutor::ActiveMQSessionExecutor** (ActiveMQSession \* *session*)

Creates an un-started executor for the given session.

#### 6.63.2.2 **virtual** **activemq::core::ActiveMQSessionExecutor::~~ActiveMQSessionExecutor** () [virtual]

Calls **stop()** (p. 463) then **clear()** (p. 461).

### 6.63.3 Member Function Documentation

#### 6.63.3.1 **virtual void activemq::core::ActiveMQSessionExecutor::clear** () [inline, virtual]

Removes all queued messages and destroys them.

#### 6.63.3.2 **virtual void ac-** **tivemq::core::ActiveMQSessionExecutor::clearMessagesInProgress** () [inline, virtual]

Removes all messages in the Dispatch Channel so that non are delivered.

#### 6.63.3.3 **virtual void activemq::core::ActiveMQSessionExecutor::close** () [inline, virtual]

Terminates the dispatching thread. Once this is called, the executor is no longer usable.

#### 6.63.3.4 **virtual void activemq::core::ActiveMQSessionExecutor::execute** (const Pointer< MessageDispatch > & *data*) [virtual]

Executes the dispatch. Adds the given data to the end of the queue.

**Parameters:**

*data* - the data to be dispatched.

#### 6.63.3.5 **virtual void activemq::core::ActiveMQSessionExecutor::executeFirst** (const Pointer< MessageDispatch > & *data*) [virtual]

Executes the dispatch. Adds the given data to the beginning of the queue.

**Parameters:**

*data* - the data to be dispatched.

**6.63.3.6** `std::vector< Pointer<MessageDispatch> > activemq::core::ActiveMQSessionExecutor::getUnconsumedMessages ()`  
[inline]

**Returns:**

a vector containing all the unconsumed messages, this clears the Message Dispatch Channel when called.

**6.63.3.7** `virtual bool activemq::core::ActiveMQSessionExecutor::hasUnconsumedMessages ()`  
`const` [inline, virtual]

**Returns:**

true if there are any pending messages in the dispatch channel.

**6.63.3.8** `virtual bool activemq::core::ActiveMQSessionExecutor::isEmpty ()`  
[inline, virtual]

**Returns:**

true if there are no messages in the Dispatch Channel.

**6.63.3.9** `virtual bool activemq::core::ActiveMQSessionExecutor::isRunning ()` `const`  
[inline, virtual]

**Returns:**

true indicates if the executor is started

**6.63.3.10** `virtual bool activemq::core::ActiveMQSessionExecutor::iterate ()`  
[virtual]

Iterates on the **MessageDispatchChannel** (p. 2224) sending all pending messages to the Consumers they are destined for.

**Returns:**

false if there are no more messages to dispatch.

Implements **activemq::threads::Task** (p. 3148).

**6.63.3.11** `virtual void activemq::core::ActiveMQSessionExecutor::start ()`  
[virtual]

Starts the dispatching.



**6.63.3.12 virtual void activemq::core::ActiveMQSessionExecutor::stop () [virtual]**

Stops dispatching.

**6.63.3.13 virtual void activemq::core::ActiveMQSessionExecutor::wakeup () [virtual]**

wakeup this executor and dispatch any pending messages.

The documentation for this class was generated from the following file:

- src/main/activemq/core/**ActiveMQSessionExecutor.h**

## 6.64 activemq::commands::ActiveMQStreamMessage Class Reference

#include <src/main/activemq/commands/ActiveMQStreamMessage.h> Inheritance diagram for activemq::commands::ActiveMQStreamMessage:

### Public Member Functions

- **ActiveMQStreamMessage** ()
- virtual **~ActiveMQStreamMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ActiveMQStreamMessage \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **onSend** ()  
*Store the Data that was written to the stream before a send.*
- virtual **cms::StreamMessage \* clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- virtual void **clearBody** () throw ( cms::CMSException )  
*Clears out the body of the message.*
- virtual void **reset** () throw ( cms::CMSException )  
*Puts the message body in read-only mode and repositions the stream of bytes to the beginning.*
- virtual bool **readBoolean** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )  
*Reads a Boolean from the Stream message stream.*
- virtual void **writeBoolean** (bool value) throw ( cms::MessageNotWriteableException, cms::CMSException )  
*Writes a boolean to the Stream message stream as a 1-byte value.*

- virtual unsigned char **readByte** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Byte from the Stream message stream.*
- virtual void **writeByte** (unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte to the Stream message stream as a 1-byte value.*
- virtual std::size\_t **readBytes** (std::vector< unsigned char > &value) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a byte array from the Stream message stream.*
- virtual void **writeBytes** (const std::vector< unsigned char > &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte array to the Stream message stream using the vector size as the number of bytes to write.*
- virtual std::size\_t **readBytes** (unsigned char \*buffer, std::size\_t length) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a portion of the Stream message stream.*
- virtual void **writeBytes** (const unsigned char \*value, std::size\_t offset, std::size\_t length) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a portion of a byte array to the Stream message stream.*
- virtual char **readChar** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Char from the Stream message stream.*
- virtual void **writeChar** (char value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a char to the Stream message stream as a 1-byte value.*
- virtual float **readFloat** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 32 bit float from the Stream message stream.*
- virtual void **writeFloat** (float value) throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a float to the Stream message stream as a 4 byte value.*
- virtual double **readDouble** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 64 bit double from the Stream message stream.*

- virtual void **writeDouble** (double value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a double to the Stream message stream as a 8 byte value.*

- virtual short **readShort** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit signed short from the Stream message stream.*

- virtual void **writeShort** (short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed short to the Stream message stream as a 2 byte value.*

- virtual unsigned short **readUnsignedShort** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit unsigned short from the Stream message stream.*

- virtual void **writeUnsignedShort** (unsigned short value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a unsigned short to the Stream message stream as a 2 byte value.*

- virtual int **readInt** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 32 bit signed integer from the Stream message stream.*

- virtual void **writeInt** (int value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed int to the Stream message stream as a 4 byte value.*

- virtual long long **readLong** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 64 bit long from the Stream message stream.*

- virtual void **writeLong** (long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a long long to the Stream message stream as a 8 byte value.*

- virtual std::string **readString** () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads an ASCII String from the Stream message stream.*

- virtual void **writeString** (const std::string &value) throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes an ASCII String to the Stream message stream.*

## Static Public Attributes

- static const unsigned char `ID_ACTIVEMQSTREAMMESSAGE` = 27

### 6.64.1 Constructor & Destructor Documentation

**6.64.1.1** `activemq::commands::ActiveMQStreamMessage::ActiveMQStreamMessage()`

**6.64.1.2** `virtual activemq::commands::ActiveMQStreamMessage::~~ActiveMQStreamMessage()` [virtual]

### 6.64.2 Member Function Documentation

**6.64.2.1** `virtual void activemq::commands::ActiveMQStreamMessage::clearBody () throw ( cms::CMSException )` [virtual]

Clears out the body of the message. This does not clear the headers or properties.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 368).

**6.64.2.2** `virtual cms::StreamMessage* activemq::commands::ActiveMQStreamMessage::clone () const` [inline, virtual]

Clone this message exactly, returns a new instance that the caller is required to delete.

#### Returns:

new copy of this message

Implements `cms::Message` (p. 2168).

**6.64.2.3** `virtual ActiveMQStreamMessage* activemq::commands::ActiveMQStreamMessage::cloneDataStructure () const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Message` (p. 2149).

**6.64.2.4** `virtual void activemq::commands::ActiveMQStreamMessage::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::Message` (p. 2150).

#### 6.64.2.5 `virtual bool activemq::commands::ActiveMQStreamMessage::equals (const DataStructure * value) const [virtual]`

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 369).

#### 6.64.2.6 `virtual unsigned char activemq::commands::ActiveMQStreamMessage::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from `activemq::commands::Message` (p. 2152).

#### 6.64.2.7 `virtual void activemq::commands::ActiveMQStreamMessage::onSend () [virtual]`

Store the Data that was written to the stream before a send.

Reimplemented from `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 376).

#### 6.64.2.8 `virtual bool activemq::commands::ActiveMQStreamMessage::readBoolean () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException ) [virtual]`

Reads a Boolean from the Stream message stream.

**Returns:**

boolean value from stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::StreamMessage** (p. 3084).

**6.64.2.9** `virtual unsigned char activemq::commands::ActiveMQStreamMessage::readByte () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Reads a Byte from the Stream message stream.

**Returns:**

unsigned char value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::StreamMessage** (p. 3084).

**6.64.2.10** `virtual std::size_t activemq::commands::ActiveMQStreamMessage::readBytes (unsigned char * buffer, std::size_t length) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [virtual]`

Reads a portion of the Stream message stream. If the length of array value is less than the number of bytes remaining to be read from the stream, the array should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of array value, the bytes should be read into the array. The return value of the total number of bytes read will be less than the length of the array, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

If length is negative, or length is greater than the length of the array value, then an CMSException is thrown. No bytes will be read from the stream for this exception case.

**Parameters:**

*buffer* the buffer into which the data is read

*length* the number of bytes to read; must be less than or equal to value.length

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3085).

**6.64.2.11** `virtual std::size_t activemq::commands::ActiveMQStreamMessage::readBytes (std::vector< unsigned char > & value) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [virtual]

Reads a byte array from the Stream message stream. If the length of vector value is less than the number of bytes remaining to be read from the stream, the vector should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of vector value, the bytes should be read into the vector. The return value of the total number of bytes read will be less than the length of the vector, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

**Parameters:**

*value* buffer to place data in

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3085).

**6.64.2.12** `virtual char activemq::commands::ActiveMQStreamMessage::readChar () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [virtual]

Reads a Char from the Stream message stream.

**Returns:**

char value from stream



**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3086).

**6.64.2.13** `virtual double activemq::commands::ActiveMQStreamMessage::readDouble  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 64 bit double from the Stream message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3086).

**6.64.2.14** `virtual float activemq::commands::ActiveMQStreamMessage::readFloat  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 32 bit float from the Stream message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3087).

**6.64.2.15** `virtual int activemq::commands::ActiveMQStreamMessage::readInt  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 32 bit signed integer from the Stream message stream.

**Returns:**

int value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3087).

**6.64.2.16** `virtual long long ac-  
tivismq::commands::ActiveMQStreamMessage::readLong  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 64 bit long from the Stream message stream.

**Returns:**

long long value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements `cms::StreamMessage` (p. 3087).

**6.64.2.17** `virtual short activemq::commands::ActiveMQStreamMessage::readShort  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 16 bit signed short from the Stream message stream.

**Returns:**

short value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::StreamMessage** (p. 3088).

**6.64.2.18** `virtual std::string activemq::commands::ActiveMQStreamMessage::readString  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads an ASCII String from the Stream message stream.

**Returns:**

String from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::StreamMessage** (p. 3088).

**6.64.2.19** `virtual unsigned short activemq::commands::ActiveMQStreamMessage::readUnsignedShort  
( ) const throw ( cms::MessageEOFException,  
cms::MessageFormatException, cms::MessageNotReadableException,  
cms::CMSException ) [virtual]`

Reads a 16 bit unsigned short from the Stream message stream.

**Returns:**

unsigned short value from stream

**Exceptions:**

*CMSException* - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* - if unexpected end of message stream has been reached.

*MessageFormatException* - if this type conversion is invalid.

*MessageNotReadableException* - if the message is in write-only mode.

Implements **cms::StreamMessage** (p. 3089).

**6.64.2.20** `virtual void activemq::commands::ActiveMQStreamMessage::reset ()  
throw ( cms::CMSException ) [virtual]`

Puts the message body in read-only mode and repositions the stream of bytes to the beginning.

**Exceptions:**

*CMSException*

**6.64.2.21** `virtual std::string ac-  
tivismq::commands::ActiveMQStreamMessage::toString ()  
const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Message** (p. 2159).

**6.64.2.22** `virtual void ac-  
tivismq::commands::ActiveMQStreamMessage::writeBoolean (bool value)  
throw ( cms::MessageNotWriteableException, cms::CMSException )  
[virtual]`

Writes a boolean to the Stream message stream as a 1-byte value. The value true is written as the value (byte)1; the value false is written as the value (byte)0.

**Parameters:**

*value* boolean to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::StreamMessage** (p. 3089).

**6.64.2.23** `virtual void activemq::commands::ActiveMQStreamMessage::writeByte  
(unsigned char value) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]`

Writes a byte to the Stream message stream as a 1-byte value.

**Parameters:**

*value* byte to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements `cms::StreamMessage` (p. 3089).

**6.64.2.24** `virtual void activemq::commands::ActiveMQStreamMessage::writeBytes (const unsigned char * value, std::size_t offset, std::size_t length) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a portion of a byte array to the Stream message stream. size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

*offset* the initial offset within the byte array

*length* the number of bytes to use

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements `cms::StreamMessage` (p. 3090).

**6.64.2.25** `virtual void activemq::commands::ActiveMQStreamMessage::writeBytes (const std::vector< unsigned char > & value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a byte array to the Stream message stream using the vector size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements `cms::StreamMessage` (p. 3090).

**6.64.2.26** `virtual void activemq::commands::ActiveMQStreamMessage::writeChar (char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [virtual]`

Writes a char to the Stream message stream as a 1-byte value.

**Parameters:**

*value* char to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::StreamMessage** (p. 3090).

**6.64.2.27** virtual void activemq::commands::ActiveMQStreamMessage::writeDouble  
(double *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSEException ) [virtual]

Writes a double to the Stream message stream as a 8 byte value.

**Parameters:**

*value* double to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::StreamMessage** (p. 3091).

**6.64.2.28** virtual void activemq::commands::ActiveMQStreamMessage::writeFloat  
(float *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSEException ) [virtual]

Writes a float to the Stream message stream as a 4 byte value.

**Parameters:**

*value* float to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::StreamMessage** (p. 3091).

**6.64.2.29** virtual void activemq::commands::ActiveMQStreamMessage::writeInt  
(int *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSEException ) [virtual]

Writes a signed int to the Stream message stream as a 4 byte value.

**Parameters:**

*value* signed int to write to the stream

**Exceptions:**

*CMSEException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements **cms::StreamMessage** (p. 3091).

**6.64.2.30** virtual void activemq::commands::ActiveMQStreamMessage::writeLong  
(long long *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes a long long to the Stream message stream as a 8 byte value.

**Parameters:**

*value* signed long long to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements cms::StreamMessage (p. 3092).

**6.64.2.31** virtual void activemq::commands::ActiveMQStreamMessage::writeShort  
(short *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes a signed short to the Stream message stream as a 2 byte value.

**Parameters:**

*value* signed short to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements cms::StreamMessage (p. 3092).

**6.64.2.32** virtual void activemq::commands::ActiveMQStreamMessage::writeString  
(const std::string & *value*) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]

Writes an ASCII String to the Stream message stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements cms::StreamMessage (p. 3092).

**6.64.2.33** `virtual void activemq::commands::ActiveMQStreamMessage::writeUnsignedShort (unsigned short value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [virtual]

Writes a unsigned short to the Stream message stream as a 2 byte value.

**Parameters:**

*value* unsigned short to write to the stream

**Exceptions:**

*CMSException* - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* - if the message is in read-only mode.

Implements `cms::StreamMessage` (p. 3093).

### 6.64.3 Field Documentation

**6.64.3.1** `const unsigned char activemq::commands::ActiveMQStreamMessage::ID_ - ACTIVEMQSTREAMMESSAGE = 27` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQStreamMessage.h`



## Class Reference

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 479).

```
#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQStreamMessageMarshaller.h>
Inheritance diagram for activemq:wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller:
```

## Public Member Functions

- **ActiveMQStreamMessageMarshaller** ()
- virtual **~ActiveMQStreamMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

## 6.65.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 479).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.65.2 Constructor & Destructor Documentation

**6.65.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::ActiveMQStreamMessageMarshaller()` [inline]

**6.65.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::~ActiveMQStreamMessageMarshaller()` [inline, virtual]

## 6.65.3 Member Function Documentation

**6.65.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.65.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.65.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.65

**activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2316).

### 6.65.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2316).

### 6.65.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2317).

**6.65.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.65.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQStreamMessageMarshaller.h`

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 483).

```
#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQStreamMessageMarshaller.h>
Inheritance diagram for activemq:wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller:
```

## Public Member Functions

- **ActiveMQStreamMessageMarshaller** ()
- virtual **~ActiveMQStreamMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

## 6.66.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 483).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.66.2 Constructor & Destructor Documentation

**6.66.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::ActiveMQStreamMessageMarshaller()` [inline]

**6.66.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::~ActiveMQStreamMessageMarshaller()` [inline, virtual]

## 6.66.3 Member Function Documentation

**6.66.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.66.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.66.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.66

**activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2326).

### 6.66.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2326).

### 6.66.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2327).

**6.66.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

**6.66.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQStreamMessageMarshaller.h`



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activemq:wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller

Class Reference

6.67 ~~activemq:wireformat::openwire::marshal::v4::ActiveMQStreamMes~~<sup>489</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 487).

```
#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQStreamMessageMarshaller.h>Inheritance diagram for activemq:wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller:
```

## Public Member Functions

- **ActiveMQStreamMessageMarshaller** ()
- virtual **~ActiveMQStreamMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.67.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 487).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.67.2 Constructor & Destructor Documentation

**6.67.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::ActiveMQStreamMessageMarshaller()` [inline]

**6.67.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::~ActiveMQStreamMessageMarshaller()` [inline, virtual]

## 6.67.3 Member Function Documentation

**6.67.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.67.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.67.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.67

**activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2311).

### 6.67.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2311).

### 6.67.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::MessageMarshaller** (p. 2312).

**6.67.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

**6.67.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQStreamMessageMarshaller.h`

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 491).

```
#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQStreamMessageMarshaller.h>
Inheritance diagram for activemq:wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller:
```

## Public Member Functions

- **ActiveMQStreamMessageMarshaller** ()
- virtual **~ActiveMQStreamMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

## 6.68.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 491).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.68.2 Constructor & Destructor Documentation

**6.68.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::ActiveMQStreamMessageMarshaller()` [inline]

**6.68.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::~ActiveMQStreamMessageMarshaller()` [inline, virtual]

## 6.68.3 Member Function Documentation

**6.68.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.68.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.68.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.68

**activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2321).

### 6.68.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2321).

### 6.68.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2322).

**6.68.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

**6.68.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQStreamMessageMarshaller.h`



6.69

activemq:wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller

Class Reference

6.69 ~~activemq:wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller~~<sup>497</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 495).

```
#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQStreamMessageMarshaller.h>
Inheritance diagram for activemq:wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller:
```

## Public Member Functions

- **ActiveMQStreamMessageMarshaller** ()
- virtual **~ActiveMQStreamMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.69.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 495).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.69.2 Constructor & Destructor Documentation

**6.69.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::ActiveMQStreamMessageMarshaller()` [inline]

**6.69.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::~ActiveMQStreamMessageMarshaller()` [inline, virtual]

## 6.69.3 Member Function Documentation

**6.69.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.69.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.69.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

## 6.69

**activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2306).

### 6.69.3.4 virtual void ac-

```
tivemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::looseUnmarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn) throw (
    decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2306).

### 6.69.3.5 virtual int ac-

```
tivemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::tightMarshal(
    OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )
[virtual]
```

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2307).

**6.69.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.69.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQStreamMessageMarshaller.h`

## 6.70 activemq::commands::ActiveMQTempDestination Class Reference

#include <src/main/activemq/commands/ActiveMQTempDestination.h> Inheritance diagram for activemq::commands::ActiveMQTempDestination:

### Public Member Functions

- **ActiveMQTempDestination** ()
- **ActiveMQTempDestination** (const std::string &name)
- virtual ~**ActiveMQTempDestination** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **ActiveMQTempDestination** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **close** () throw ( cms::CMSException )  
*Closes down this Destination resulting in a call to dispose of the TempDestination resource at the Broker.*
- void **setConnection** (core::ActiveMQConnection \*connection)  
*Sets the Parent Connection that is notified when this destination is destroyed.*

### Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQTEMPDESTINATION** = 0

### Protected Attributes

- core::ActiveMQConnection \* **connection**  
*Connection that we call back on close to allow this resource to be cleaned up correctly at this end and at the Broker End.*

## 6.70.1 Constructor & Destructor Documentation

- 6.70.1.1** `activemq::commands::ActiveMQTempDestination::ActiveMQTempDestination()`
- 6.70.1.2** `activemq::commands::ActiveMQTempDestination::ActiveMQTempDestination(const std::string & name)`
- 6.70.1.3** `virtual activemq::commands::ActiveMQTempDestination::~~ActiveMQTempDestination()` [virtual]

## 6.70.2 Member Function Documentation

- 6.70.2.1** `virtual ActiveMQTempDestination* activemq::commands::ActiveMQTempDestination::cloneDataStructure()` `const` [inline, virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 276).

Reimplemented in `activemq::commands::ActiveMQTempQueue` (p. 524), and `activemq::commands::ActiveMQTempTopic` (p. 549).

- 6.70.2.2** `virtual void activemq::commands::ActiveMQTempDestination::close()` `throw ( cms::CMSException )` [virtual]

Closes down this Destination resulting in a call to dispose of the TempDestination resource at the Broker. This should only be called when the user is certain that they are finished with this destination. The TempDestination is not closed automatically on shutdown. throws `cms::CMSException` (p. 1031)

Implements `cms::Closeable` (p. 1021).

- 6.70.2.3** `virtual void activemq::commands::ActiveMQTempDestination::copyDataStructure(const DataStructure * src)` [inline, virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

### Returns:

src - Source Object

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 277).

Reimplemented in `activemq::commands::ActiveMQTempQueue` (p. 525), and `activemq::commands::ActiveMQTempTopic` (p. 550).

References `activemq::commands::ActiveMQDestination::copyDataStructure()`.

**6.70.2.4 virtual bool activemq::commands::ActiveMQTempDestination::equals  
(const DataStructure \* *value*) const [inline, virtual]**

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::ActiveMQDestination** (p. 278).

Reimplemented in **activemq::commands::ActiveMQTempQueue** (p. 525), and **activemq::commands::ActiveMQTempTopic** (p. 550).

References **activemq::commands::ActiveMQDestination::equals()**.

**6.70.2.5 virtual unsigned char activemq::commands::ActiveMQTempDestination::getDataStructureType ()  
const [virtual]**

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.

**Returns:**

The type of the data structure

Reimplemented from **activemq::commands::ActiveMQDestination** (p. 278).

Reimplemented in **activemq::commands::ActiveMQTempQueue** (p. 526), and **activemq::commands::ActiveMQTempTopic** (p. 551).

**6.70.2.6 void activemq::commands::ActiveMQTempDestination::setConnection  
(core::ActiveMQConnection \* *connection*) [inline]**

Sets the Parent Connection that is notified when this destination is destroyed.

**Parameters:**

*connection* - The parent connection.

**6.70.2.7 virtual std::string activemq::commands::ActiveMQTempDestination::toString ()  
const [virtual]**

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::ActiveMQDestination** (p. 282).

Reimplemented in **activemq::commands::ActiveMQTempQueue** (p. 526), and **activemq::commands::ActiveMQTempTopic** (p. 551).

### 6.70.3 Field Documentation

**6.70.3.1** `core::ActiveMQConnection* activemq::commands::ActiveMQTempDestination::connection`  
[protected]

Connection that we call back on close to allow this resource to be cleaned up correctly at this end and at the Broker End.

**6.70.3.2** `const unsigned char activemq::commands::ActiveMQTempDestination::ID -`  
`ACTIVEMQTEMPDESTINATION = 0` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQTempDestination.h`



6.71

activemq:wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller

Class Reference

6.71 ~~activemq:wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller~~ 505

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 503).

```
#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempDestinationMarshaller.h>
diagram for activemq:wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller:
```

## Public Member Functions

- **ActiveMQTempDestinationMarshaller** ()
- virtual **~ActiveMQTempDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.71.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 503).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.71.2 Constructor & Destructor Documentation

**6.71.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::ActiveMQTempDestinationMarshaller()` [inline]

**6.71.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::~ActiveMQTempDestinationMarshaller()` [inline, virtual]

## 6.71.3 Member Function Documentation

**6.71.3.1** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 286).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 529), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 554).

**6.71.3.2** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

## 6.71

**activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller** (p. 286).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller** (p. 530), and **activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller** (p. 555).

**6.71.3.3 virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )**  
[virtual]

Write the booleans that this object uses to a BooleanStream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

### Returns:

int value indicating the size of the marshaled object.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller** (p. 287).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller** (p. 530), and **activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller** (p. 555).

**6.71.3.4 virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )** [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 287).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 530), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 555).

**6.71.3.5** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 288).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller` (p. 531), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller` (p. 556).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempDestinationMarshaller.h`

6.72

activemq:wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller

Class Reference

6.72 ~~activemq:wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller~~<sup>509</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 507).

```
#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempDestinationMarshaller.h>
diagram for activemq:wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller:
```

## Public Member Functions

- **ActiveMQTempDestinationMarshaller** ()
- virtual **~ActiveMQTempDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.72.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 507).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.72.2 Constructor & Destructor Documentation

**6.72.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::ActiveMQTempDestinationMarshaller()` [inline]

**6.72.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::~ActiveMQTempDestinationMarshaller()` [inline, virtual]

## 6.72.3 Member Function Documentation

**6.72.3.1** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 290).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 533), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 558).

**6.72.3.2** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

## 6.72

**activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller** (p. 290).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller** (p. 534), and **activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller** (p. 559).

**6.72.3.3** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::tightMar  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )`  
[virtual]

Write the booleans that this object uses to a BooleanStream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

### Returns:

int value indicating the size of the marshaled object.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller** (p. 291).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller** (p. 534), and **activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller** (p. 559).

**6.72.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::tightMa  
(OpenWireFormat * wireFormat, commands::DataStructure  
* dataStructure, decaf::io::DataOutputStream * dataOut,  
utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 534), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 559).

**6.72.3.5** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 292).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 535), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 560).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempDestinationMarshaller.h`



## Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 511).

```
#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h>
diagram for activemq:wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller:
```

## Public Member Functions

- **ActiveMQTempDestinationMarshaller** ()
- virtual **~ActiveMQTempDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

## 6.73.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 511).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.73.2 Constructor & Destructor Documentation

**6.73.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::ActiveMQTempDestinationMarshaller()` [inline]

**6.73.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::~ActiveMQTempDestinationMarshaller()` [inline, virtual]

## 6.73.3 Member Function Documentation

**6.73.3.1** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 294).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 537), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 562).

**6.73.3.2** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

### 6.73

**activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller** (p. 294).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller** (p. 538), and **activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller** (p. 563).

**6.73.3.3 virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::tightMar**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )  
[virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller** (p. 295).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller** (p. 538), and **activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller** (p. 563).

**6.73.3.4 virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::tightMa**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 295).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 538), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 563).

**6.73.3.5** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 296).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller` (p. 539), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller` (p. 564).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h`

6.74

activemq:wireformat::openwire::marshal:v5::ActiveMQTempDestinationMarshaller

Class Reference

6.74 ~~activemq:wireformat::openwire::marshal:v5::ActiveMQTempDestinationMarshaller~~<sup>517</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 515).

```
#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempDestinationMarshaller.h>
diagram for activemq:wireformat::openwire::marshal:v5::ActiveMQTempDestinationMarshaller:
```

## Public Member Functions

- **ActiveMQTempDestinationMarshaller** ()
- virtual **~ActiveMQTempDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.74.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 515).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.74.2 Constructor & Destructor Documentation

**6.74.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller::ActiveMQTempDestinationMarshaller()` [inline]

**6.74.2.2** `virtual ~ActiveMQTempDestinationMarshaller()` [inline, virtual]

## 6.74.3 Member Function Documentation

**6.74.3.1** `virtual void activate(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataOut* - BinaryWriter that provides that data sink

### Exceptions:

- IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 298).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 541), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 566).

**6.74.3.2** `virtual void deactivate(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataIn* - BinaryReader that provides that data source

### Exceptions:

- IOException* if an error occurs during the unmarshal.

## 6.74

**activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller** (p. 298).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller** (p. 542), and **activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller** (p. 567).

**6.74.3.3 virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException ) [virtual]**

Write the booleans that this object uses to a BooleanStream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

### Returns:

int value indicating the size of the marshaled object.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller** (p. 299).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller** (p. 542), and **activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller** (p. 567).

**6.74.3.4 virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, decaf::io::DataOutputStream \* dataOut, utils::BooleanStream \* bs) throw ( decaf::io::IOException ) [virtual]**

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 299).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 542), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 567).

**6.74.3.5** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 300).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 543), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 568).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempDestinationMarshaller.h`



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activemq:wireformat::openwire::marshal:v2::ActiveMQTempDestinationMarshaller

Class Reference

6.75 ~~activemq:wireformat::openwire::marshal:v2::ActiveMQTempDestinationMarshaller~~<sup>521</sup>

## Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 519).

```
#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h>
diagram for activemq:wireformat::openwire::marshal:v2::ActiveMQTempDestinationMarshaller:
```

## Public Member Functions

- **ActiveMQTempDestinationMarshaller** ()
- virtual **~ActiveMQTempDestinationMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.75.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 519).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.75.2 Constructor & Destructor Documentation

**6.75.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::ActiveMQTempDestinationMarshaller()` [inline]

**6.75.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::~ActiveMQTempDestinationMarshaller()` [inline, virtual]

## 6.75.3 Member Function Documentation

**6.75.3.1** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 302).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 545), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 570).

**6.75.3.2** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::unmarshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

## 6.75

**activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller**

**Class Reference**

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Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller** (p. 302).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller** (p. 546), and **activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller** (p. 571).

**6.75.3.3 virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException ) [virtual]**

Write the booleans that this object uses to a BooleanStream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

### Returns:

int value indicating the size of the marshaled object.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller** (p. 303).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller** (p. 546), and **activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller** (p. 571).

**6.75.3.4 virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::tightMarshal (OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, decaf::io::DataOutputStream \* dataOut, utils::BooleanStream \* bs) throw ( decaf::io::IOException ) [virtual]**

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 303).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 546), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 571).

**6.75.3.5** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 304).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller` (p. 547), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller` (p. 572).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h`

## 6.76 activemq::commands::ActiveMQTempQueue Class Reference

#include <src/main/activemq/commands/ActiveMQTempQueue.h> Inheritance diagram for activemq::commands::ActiveMQTempQueue:

### Public Member Functions

- **ActiveMQTempQueue** ()
- **ActiveMQTempQueue** (const std::string &name)
- virtual ~**ActiveMQTempQueue** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **ActiveMQTempQueue** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Converts the Destination Name into a String.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **cms::Destination** \* **getCMSDestination** () const
- virtual **cms::Destination::DestinationType** **getDestinationType** () const  
*Retrieve the Destination Type for this Destination.*
- virtual **cms::Destination** \* **clone** () const  
*Creates a new instance of this destination type that is a copy of this one, and returns it.*
- virtual void **copy** (const **cms::Destination** &source)  
*Copies the contents of the given Destinastion object to this one.*
- virtual const **cms::CMSProperties** & **getCMSProperties** () const  
*Retrieve any properties that might be part of the destination that was specified.*
- virtual std::string **getQueueName** () const throw ( cms::CMSException )  
*Gets the name of this queue.*
- virtual void **destroy** () throw ( cms::CMSException )  
*Destroy's the Temp Destination at the Broker.*

## Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQTEMPQUEUE** = 102

### 6.76.1 Constructor & Destructor Documentation

**6.76.1.1** `activemq::commands::ActiveMQTempQueue::ActiveMQTempQueue ()`

**6.76.1.2** `activemq::commands::ActiveMQTempQueue::ActiveMQTempQueue (const std::string & name)`

**6.76.1.3** `virtual  
activemq::commands::ActiveMQTempQueue::~~ActiveMQTempQueue ()  
[virtual]`

### 6.76.2 Member Function Documentation

**6.76.2.1** `virtual cms::Destination* ac-  
tivemq::commands::ActiveMQTempQueue::clone () const  
[inline, virtual]`

Creates a new instance of this destination type that is a copy of this one, and returns it.

#### Returns:

cloned copy of this object

Implements **cms::Destination** (p. 1481).

**6.76.2.2** `virtual ActiveMQTempQueue* ac-  
tivemq::commands::ActiveMQTempQueue::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 500).

**6.76.2.3** `virtual void activemq::commands::ActiveMQTempQueue::copy (const  
cms::Destination & source) [inline, virtual]`

Copies the contents of the given Destination object to this one.

#### Parameters:

*source* The source Destination object.

Implements **cms::Destination** (p. 1481).

**6.76.2.4** `virtual void activemq::commands::ActiveMQTempQueue::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::ActiveMQTempDestination` (p. 500).

**6.76.2.5** `virtual void activemq::commands::ActiveMQTempQueue::destroy () throw ( cms::CMSException ) [virtual]`

Destroy's the Temp Destination at the Broker.

**Exceptions:**

*CMSException*

Implements `cms::TemporaryQueue` (p. 3166).

**6.76.2.6** `virtual bool activemq::commands::ActiveMQTempQueue::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQTempDestination` (p. 501).

**6.76.2.7** `virtual const cms::Destination* activemq::commands::ActiveMQTempQueue::getCMSDestination () const [inline, virtual]`

**Returns:**

the `cms::Destination` (p. 1480) interface pointer that the objects that derive from this class implement.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.76.2.8** `virtual const cms::CMSProperties& activemq::commands::ActiveMQTempQueue::getCMSProperties () const [inline, virtual]`

Retrieve any properties that might be part of the destination that was specified. This is a deviation from the JMS spec but necessary due to C++ restrictions.

**Returns:**

const reference to a properties object.

Implements **cms::Destination** (p. 1481).

**6.76.2.9** `virtual unsigned char activemq::commands::ActiveMQTempQueue::getDataStructureType () const [virtual]`

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.

**Returns:**

The type of the data structure

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 501).

**6.76.2.10** `virtual cms::Destination::DestinationType activemq::commands::ActiveMQTempQueue::getDestinationType () const [inline, virtual]`

Retrieve the Destination Type for this Destination.

**Returns:**

The Destination Type

Implements **activemq::commands::ActiveMQDestination** (p. 279).

References cms::Destination::TEMPORARY\_QUEUE.

**6.76.2.11** `virtual std::string activemq::commands::ActiveMQTempQueue::getQueueName () const throw ( cms::CMSException ) [inline, virtual]`

Gets the name of this queue.

**Returns:**

The queue name.

Implements **cms::TemporaryQueue** (p. 3167).

**6.76.2.12** `virtual std::string activemq::commands::ActiveMQTempQueue::toString () const [virtual]`

Converts the Destination Name into a String.

**Returns:**

string name

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 501).



### 6.76.3 Field Documentation

#### 6.76.3.1 `const unsigned char activemq::commands::ActiveMQTempQueue::ID_ - ACTIVEMQTEMPQUEUE = 102` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQTempQueue.h`

## 6.77 activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 528).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempQueueMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller:

### Public Member Functions

- **ActiveMQTempQueueMarshaller** ()
- virtual **~ActiveMQTempQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.77.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 528).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.77.2 Constructor & Destructor Documentation

**6.77.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::ActiveMQTempQueueMarshaller()` `[inline]`

**6.77.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::~~ActiveMQTempQueueMarshaller()` `[inline, virtual]`

## 6.77.3 Member Function Documentation

**6.77.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.77.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.77.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 504).

**6.77.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 504).

**6.77.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 505).

**6.77.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 505).

**6.77.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 506).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempQueueMarshaller.h`

## 6.78 activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 532).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempQueueMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller:

### Public Member Functions

- **ActiveMQTempQueueMarshaller** ()
- virtual **~ActiveMQTempQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.78.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 532).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.78.2 Constructor & Destructor Documentation

**6.78.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::ActiveMQTempQueueMarshaller()` `[inline]`

**6.78.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::~~ActiveMQTempQueueMarshaller()` `[inline, virtual]`

## 6.78.3 Member Function Documentation

**6.78.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.78.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.78.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508).

**6.78.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508).

**6.78.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509).



**6.78.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509).

**6.78.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 510).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempQueueMarshaller.h`

## 6.79 activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 536).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempQueueMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller:

### Public Member Functions

- **ActiveMQTempQueueMarshaller** ()
- virtual **~ActiveMQTempQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.79.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 536).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.79.2 Constructor & Destructor Documentation

**6.79.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::ActiveMQTempQueueMarshaller()` `[inline]`

**6.79.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::~~ActiveMQTempQueueMarshaller()` `[inline, virtual]`

## 6.79.3 Member Function Documentation

**6.79.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.79.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.79.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512).

**6.79.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512).

**6.79.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513).

**6.79.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513).

**6.79.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 514).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempQueueMarshaller.h`

## 6.80 activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 540).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempQueueMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller:

### Public Member Functions

- **ActiveMQTempQueueMarshaller** ()
- virtual **~ActiveMQTempQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.80.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 540).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.80.2 Constructor & Destructor Documentation

**6.80.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::ActiveMQTempQueueMarshaller()` `[inline]`

**6.80.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::~~ActiveMQTempQueueMarshaller()` `[inline, virtual]`

## 6.80.3 Member Function Documentation

**6.80.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.80.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.80.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 516).

**6.80.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 516).

**6.80.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 517).



**6.80.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 517).

**6.80.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 518).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempQueueMarshaller.h`

## 6.81 activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 544).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempQueueMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller:

### Public Member Functions

- **ActiveMQTempQueueMarshaller** ()
- virtual **~ActiveMQTempQueueMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.81.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 544).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.81.2 Constructor & Destructor Documentation

**6.81.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::ActiveMQTempQueueMarshaller()` [inline]

**6.81.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::~~ActiveMQTempQueueMarshaller()` [inline, virtual]

## 6.81.3 Member Function Documentation

**6.81.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.81.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.81.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 520).

**6.81.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 520).

**6.81.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 521).

**6.81.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 521).

**6.81.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 522).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempQueueMarshaller.h`

## 6.82 activemq::commands::ActiveMQTempTopic Class Reference

#include <src/main/activemq/commands/ActiveMQTempTopic.h> Inheritance diagram for activemq::commands::ActiveMQTempTopic:

### Public Member Functions

- **ActiveMQTempTopic** ()
- **ActiveMQTempTopic** (const std::string &name)
- virtual ~**ActiveMQTempTopic** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **ActiveMQTempTopic** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Converts the Destination Name into a String.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **cms::Destination** \* **getCMSDestination** () const
- virtual **cms::Destination::DestinationType** **getDestinationType** () const  
*Retrieve the Destination Type for this Destination.*
- virtual **cms::Destination** \* **clone** () const  
*Creates a new instance of this destination type that is a copy of this one, and returns it.*
- virtual void **copy** (const **cms::Destination** &source)  
*Copies the contents of the given Destinastion object to this one.*
- virtual const **cms::CMSProperties** & **getCMSProperties** () const  
*Retrieve any properties that might be part of the destination that was specified.*
- virtual std::string **getTopicName** () const throw ( cms::CMSException )  
*Gets the name of this topic.*
- virtual void **destroy** () throw ( cms::CMSException )  
*Destroy's the Temp Destination at the Broker.*

## Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQTEMPTOPIC** = 103

## 6.82.1 Constructor & Destructor Documentation

**6.82.1.1** `activemq::commands::ActiveMQTempTopic::ActiveMQTempTopic ()`

**6.82.1.2** `activemq::commands::ActiveMQTempTopic::ActiveMQTempTopic (const std::string & name)`

**6.82.1.3** `virtual  
activemq::commands::ActiveMQTempTopic::~~ActiveMQTempTopic ()  
[virtual]`

## 6.82.2 Member Function Documentation

**6.82.2.1** `virtual cms::Destination* ac-  
tivemq::commands::ActiveMQTempTopic::clone () const  
[inline, virtual]`

Creates a new instance of this destination type that is a copy of this one, and returns it.

### Returns:

cloned copy of this object

Implements **cms::Destination** (p. 1481).

**6.82.2.2** `virtual ActiveMQTempTopic* ac-  
tivemq::commands::ActiveMQTempTopic::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 500).

**6.82.2.3** `virtual void activemq::commands::ActiveMQTempTopic::copy (const cms::Destination & source) [inline, virtual]`

Copies the contents of the given Destination object to this one.

### Parameters:

*source* The source Destination object.

Implements **cms::Destination** (p. 1481).

**6.82.2.4** `virtual void activemq::commands::ActiveMQTempTopic::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::ActiveMQTempDestination` (p. 500).

**6.82.2.5** `virtual void activemq::commands::ActiveMQTempTopic::destroy () throw ( cms::CMSException ) [virtual]`

Destroy's the Temp Destination at the Broker.

**Exceptions:**

*CMSException*

Implements `cms::TemporaryTopic` (p. 3168).

**6.82.2.6** `virtual bool activemq::commands::ActiveMQTempTopic::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::ActiveMQTempDestination` (p. 501).

**6.82.2.7** `virtual const cms::Destination* activemq::commands::ActiveMQTempTopic::getCMSDestination () const [inline, virtual]`

**Returns:**

the `cms::Destination` (p. 1480) interface pointer that the objects that derive from this class implement.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.82.2.8** `virtual const cms::CMSPProperties& activemq::commands::ActiveMQTempTopic::getCMSPProperties () const [inline, virtual]`

Retrieve any properties that might be part of the destination that was specified. This is a deviation from the JMS spec but necessary due to C++ restrictions.



**Returns:**

const reference to a properties object.

Implements **cms::Destination** (p. 1481).

**6.82.2.9** `virtual unsigned char activemq::commands::ActiveMQTempTopic::getDataStructureType () const [virtual]`

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.

**Returns:**

The type of the data structure

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 501).

**6.82.2.10** `virtual cms::Destination::DestinationType activemq::commands::ActiveMQTempTopic::getDestinationType () const [inline, virtual]`

Retrieve the Destination Type for this Destination.

**Returns:**

The Destination Type

Implements **activemq::commands::ActiveMQDestination** (p. 279).

References cms::Destination::TEMPORARY\_TOPIC.

**6.82.2.11** `virtual std::string activemq::commands::ActiveMQTempTopic::getTopicName () const throw ( cms::CMSException ) [inline, virtual]`

Gets the name of this topic.

**Returns:**

The topic name.

Implements **cms::TemporaryTopic** (p. 3169).

**6.82.2.12** `virtual std::string activemq::commands::ActiveMQTempTopic::toString () const [virtual]`

Converts the Destination Name into a String.

**Returns:**

string name

Reimplemented from **activemq::commands::ActiveMQTempDestination** (p. 501).

### 6.82.3 Field Documentation

**6.82.3.1** `const unsigned char activemq::commands::ActiveMQTempTopic::ID_-  
ACTIVEMQTEMPTOPIC = 103` `[static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQTempTopic.h`

## 6.83 activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopic Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 553).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempTopicMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller:

### Public Member Functions

- **ActiveMQTempTopicMarshaller** ()
- virtual **~ActiveMQTempTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.83.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 553). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.83.2 Constructor & Destructor Documentation

**6.83.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::ActiveMQTempTopicMarshaller()` [inline]

**6.83.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::~~ActiveMQTempTopicMarshaller()` [inline, virtual]

## 6.83.3 Member Function Documentation

**6.83.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.83.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.83.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller** (p. 504).

**6.83.3.4 virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller** (p. 504).

**6.83.3.5 virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )** [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller** (p. 505).

```

6.83.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 505).

```

6.83.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller` (p. 506).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempTopicMarshaller.h`

## 6.84 activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopic Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 557).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempTopicMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller:

### Public Member Functions

- **ActiveMQTempTopicMarshaller** ()
- virtual **~ActiveMQTempTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.84.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 557). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.84.2 Constructor & Destructor Documentation

**6.84.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::ActiveMQTempTopicMarshaller()` [inline]

**6.84.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::~~ActiveMQTempTopicMarshaller()` [inline, virtual]

## 6.84.3 Member Function Documentation

**6.84.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.84.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.84.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508).

**6.84.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 508).

**6.84.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509).

```

6.84.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509).

```

6.84.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 510).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempTopicMarshaller.h`

## 6.85 activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopic Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 561).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempTopicMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller:

### Public Member Functions

- **ActiveMQTempTopicMarshaller** ()
- virtual **~ActiveMQTempTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.85.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 561). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.85.2 Constructor & Destructor Documentation

**6.85.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::ActiveMQTempTopicMarshaller()` [inline]

**6.85.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::~~ActiveMQTempTopicMarshaller()` [inline, virtual]

## 6.85.3 Member Function Documentation

**6.85.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.85.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.85.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512).

**6.85.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 512).

**6.85.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513).

```

6.85.3.6 virtual void ac-
tivemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::tightMarshal2
(OpenWireFormat * wireFormat, commands::DataStructure
* dataStructure, decaf::io::DataOutputStream * dataOut,
utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 513).

```

6.85.3.7 virtual void ac-
tivemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller::tightUnmarshal
(OpenWireFormat * wireFormat, commands::DataStructure *
dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
* bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller` (p. 514).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempTopicMarshaller.h`

## 6.86 activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopic Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 565).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempTopicMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller:

### Public Member Functions

- **ActiveMQTempTopicMarshaller** ()
- virtual **~ActiveMQTempTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.86.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 565). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.86.2 Constructor & Destructor Documentation

**6.86.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::ActiveMQTempTopicMarshaller()` [inline]

**6.86.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::~~ActiveMQTempTopicMarshaller()` [inline, virtual]

## 6.86.3 Member Function Documentation

**6.86.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.86.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.86.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller** (p. 516).

**6.86.3.4 virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]**

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller** (p. 516).

**6.86.3.5 virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller** (p. 517).

**6.86.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 517).

**6.86.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller` (p. 518).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempTopicMarshaller.h`

## 6.87 activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopic Class Reference

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 569).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempTopicMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller:

### Public Member Functions

- **ActiveMQTempTopicMarshaller** ()
- virtual **~ActiveMQTempTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.87.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 569). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.87.2 Constructor & Destructor Documentation

**6.87.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::ActiveMQTempTopicMarshaller()` [inline]

**6.87.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::~~ActiveMQTempTopicMarshaller()` [inline, virtual]

## 6.87.3 Member Function Documentation

**6.87.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.87.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.87.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller** (p. 520).

**6.87.3.4 virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller** (p. 520).

**6.87.3.5 virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller** (p. 521).

```

6.87.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::tightMarshal2
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]

```

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 521).

```

6.87.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure *
    dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream
    * bs) throw ( decaf::io::IOException ) [virtual]

```

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller` (p. 522).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempTopicMarshaller.h`

## 6.88 activemq::commands::ActiveMQTextMessage Class Reference

#include <src/main/activemq/commands/ActiveMQTextMessage.h> Inheritance diagram for activemq::commands::ActiveMQTextMessage:

### Public Member Functions

- **ActiveMQTextMessage** ()
- virtual **~ActiveMQTextMessage** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ActiveMQTextMessage \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **clearBody** () throw ( cms::CMSException )  
*Clears out the body of the message.*
- virtual void **beforeMarshal** (wireformat::WireFormat \*wireFormat) throw ( decaf::io::IOException )  
*Performs any cleanup or other tasks that must be done before the **Message** (p. 2145) is marshalled to its binary WireFormat version.*
- virtual unsigned int **getSize** () const  
*Returns the Size of this message in Bytes.*
- virtual cms::TextMessage \* **clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- virtual std::string **getText** () const throw ( cms::CMSException )  
*Gets the message character buffer.*
- virtual void **setText** (const char \*msg) throw ( cms::MessageNotWriteableException, cms::CMSException )  
*Sets the message contents, does not take ownership of the passed char\*, but copies it instead.*

- virtual void **setText** (const std::string &msg) throw ( cms::MessageNotWriteableException, cms::CMSException )

*Sets the message contents.*

## Data Fields

- std::auto\_ptr< std::string > **text**

## Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQTEXTMESSAGE** = 28

### 6.88.1 Constructor & Destructor Documentation

**6.88.1.1** **activemq::commands::ActiveMQTextMessage::ActiveMQTextMessage ()**

**6.88.1.2** **virtual**  
**activemq::commands::ActiveMQTextMessage::~~ActiveMQTextMessage ()**  
 [virtual]

### 6.88.2 Member Function Documentation

**6.88.2.1** **virtual void activemq::commands::ActiveMQTextMessage::beforeMarshal**  
**(wireformat::WireFormat \* *wireFormat*) throw ( decaf::io::IOException )**  
 [virtual]

Performs any cleanup or other tasks that must be done before the **Message** (p. 2145) is marshalled to its binary WireFormat version.

#### Parameters:

***wireFormat*** the WireFormat instance that is marshalling this message.

Implements **activemq::wireformat::MarshalAware** (p. 2119).

**6.88.2.2** **virtual void activemq::commands::ActiveMQTextMessage::clearBody ()**  
**throw ( cms::CMSException )** [virtual]

Clears out the body of the message. This does not clear the headers or properties.

Reimplemented from **activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >** (p. 368).

**6.88.2.3** **virtual cms::TextMessage\* ac-**  
**tivemq::commands::ActiveMQTextMessage::clone () const**  
 [inline, virtual]

Clone this message exactly, returns a new instance that the caller is required to delete.



**Returns:**

new copy of this message

Implements **cms::Message** (p. 2168).

**6.88.2.4 virtual ActiveMQTextMessage\* activemq::commands::ActiveMQTextMessage::cloneDataStructure () const [virtual]**

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Reimplemented from **activemq::commands::Message** (p. 2149).

**6.88.2.5 virtual void activemq::commands::ActiveMQTextMessage::copyDataStructure (const DataStructure \* src) [virtual]**

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from **activemq::commands::Message** (p. 2150).

**6.88.2.6 virtual bool activemq::commands::ActiveMQTextMessage::equals (const DataStructure \* value) const [virtual]**

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >** (p. 369).

**6.88.2.7 virtual unsigned char activemq::commands::ActiveMQTextMessage::getDataStructureType () const [virtual]**

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::Message** (p. 2152).

**6.88.2.8** `virtual unsigned int activemq::commands::ActiveMQTextMessage::getSize  
() const [virtual]`

Returns the Size of this message in Bytes.

**Returns:**

number of bytes this message equates to.

Reimplemented from `activemq::commands::Message` (p. 2154).

**6.88.2.9** `virtual std::string activemq::commands::ActiveMQTextMessage::getText  
() const throw ( cms::CMSException ) [virtual]`

Gets the message character buffer.

**Returns:**

The message character buffer.

**Exceptions:**

*CMSException* - if an internal error occurs.

Implements `cms::TextMessage` (p. 3170).

**6.88.2.10** `virtual void activemq::commands::ActiveMQTextMessage::setText  
(const std::string & msg) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]`

Sets the message contents.

**Parameters:**

*msg* The message buffer.

**Exceptions:**

*CMSException* - if an internal error occurs.

*MessageNotWriteableException* - if the message is in read-only mode..

Implements `cms::TextMessage` (p. 3171).

**6.88.2.11** `virtual void activemq::commands::ActiveMQTextMessage::setText  
(const char * msg) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [virtual]`

Sets the message contents, does not take ownership of the passed char\*, but copies it instead.

**Parameters:**

*msg* The message buffer.

**Exceptions:**

*CMSException* - if an internal error occurs.

*MessageNotWriteableException* - if the message is in read-only mode..

Implements **cms::TextMessage** (p. 3171).

**6.88.2.12** `virtual std::string activemq::commands::ActiveMQTextMessage::toString()  
() const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Message** (p. 2159).

**6.88.3 Field Documentation****6.88.3.1** `const unsigned char activemq::commands::ActiveMQTextMessage::ID_-  
ACTIVEMQTEXTMESSAGE = 28 [static]`**6.88.3.2** `std::auto_ptr<std::string> ac-  
tivemq::commands::ActiveMQTextMessage::text  
[mutable]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQTextMessage.h`

## 6.89 activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 578).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTextMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller:

### Public Member Functions

- **ActiveMQTextMessageMarshaller** ()
- virtual **~ActiveMQTextMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.89.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 578).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.89.2 Constructor & Destructor Documentation

**6.89.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::ActiveMQTextMessageMarshaller()` [inline]

**6.89.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::~~ActiveMQTextMessageMarshaller()` [inline, virtual]

## 6.89.3 Member Function Documentation

**6.89.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.89.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.89.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::looseMarshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.89.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2316).

**6.89.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2317).

**6.89.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

**6.89.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTextMessageMarshaller.h`

## 6.90 activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 582).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTextMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller:

### Public Member Functions

- **ActiveMQTextMessageMarshaller** ()
- virtual **~ActiveMQTextMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.90.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 582).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.90.2 Constructor & Destructor Documentation

**6.90.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::ActiveMQTextMessageMarshaller()` [inline]

**6.90.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::~~ActiveMQTextMessageMarshaller()` [inline, virtual]

## 6.90.3 Member Function Documentation

**6.90.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::createObjectInstance(const commands::DataStructure& dataStructure) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.90.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.90.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::looseMarshal(const commands::DataStructure& dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.90.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326).

**6.90.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2327).

**6.90.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2328).

**6.90.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2328).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTextMessageMarshaller.h

## 6.91 activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 586).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTextMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller:

### Public Member Functions

- **ActiveMQTextMessageMarshaller** ()
- virtual **~ActiveMQTextMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.91.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 586).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.91.2 Constructor & Destructor Documentation

**6.91.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::ActiveMQTextMessageMarshaller()` [inline]

**6.91.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::~~ActiveMQTextMessageMarshaller()` [inline, virtual]

## 6.91.3 Member Function Documentation

**6.91.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.91.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.91.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::looseMarshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.91.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311).

**6.91.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2312).

**6.91.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

**6.91.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2313).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTextMessageMarshaller.h`

## 6.92 activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 590).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTextMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller:

### Public Member Functions

- **ActiveMQTextMessageMarshaller** ()
- virtual **~ActiveMQTextMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.92.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 590).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.92.2 Constructor & Destructor Documentation

**6.92.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::ActiveMQTextMessageMarshaller()` [inline]

**6.92.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::~~ActiveMQTextMessageMarshaller()` [inline, virtual]

## 6.92.3 Member Function Documentation

**6.92.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::createObject(const commands::DataStructure& dataStructure) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.92.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.92.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::looseMarshal(const commands::DataStructure& dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.92.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321).

**6.92.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2322).

**6.92.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2323).

**6.92.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2323).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTextMessageMarshaller.h

## 6.93 activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 594).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTextMessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller:

### Public Member Functions

- **ActiveMQTextMessageMarshaller** ()
- virtual **~ActiveMQTextMessageMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.93.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 594).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.93.2 Constructor & Destructor Documentation

**6.93.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::ActiveMQTextMessageMarshaller()` [inline]

**6.93.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::~~ActiveMQTextMessageMarshaller()` [inline, virtual]

## 6.93.3 Member Function Documentation

**6.93.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::createObject(const std::string& name) const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.93.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.93.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::looseMarshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.93.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2306).

**6.93.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2307).

**6.93.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

**6.93.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTextMessageMarshaller.h`

## 6.94 activemq::commands::ActiveMQTopic Class Reference

#include <src/main/activemq/commands/ActiveMQTopic.h> Inheritance diagram for activemq::commands::ActiveMQTopic:

### Public Member Functions

- **ActiveMQTopic** ()
- **ActiveMQTopic** (const std::string &name)
- virtual ~**ActiveMQTopic** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **ActiveMQTopic** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const cms::Destination \* **getCMSDestination** () const
- virtual cms::Destination::DestinationType **getDestinationType** () const  
*Retrieve the Destination Type for this Destination.*
- virtual cms::Destination \* **clone** () const  
*Creates a new instance of this destination type that is a copy of this one, and returns it.*
- virtual void **copy** (const cms::Destination &source)  
*Copies the contents of the given Destination object to this one.*
- virtual const cms::CMSProperties & **getCMSProperties** () const  
*Retrieve any properties that might be part of the destination that was specified.*
- virtual std::string **getTopicName** () const throw ( cms::CMSException )  
*Gets the name of this topic.*

### Static Public Attributes

- static const unsigned char **ID\_ACTIVEMQTOPIC** = 101



## 6.94.1 Constructor & Destructor Documentation

**6.94.1.1** `activemq::commands::ActiveMQTopic::ActiveMQTopic ()`

**6.94.1.2** `activemq::commands::ActiveMQTopic::ActiveMQTopic (const std::string & name)`

**6.94.1.3** `virtual activemq::commands::ActiveMQTopic::~~ActiveMQTopic ()`  
[virtual]

## 6.94.2 Member Function Documentation

**6.94.2.1** `virtual cms::Destination* activemq::commands::ActiveMQTopic::clone ()`  
`const` [inline, virtual]

Creates a new instance of this destination type that is a copy of this one, and returns it.

### Returns:

cloned copy of this object

Implements `cms::Destination` (p. 1481).

**6.94.2.2** `virtual ActiveMQTopic* activemq::commands::ActiveMQTopic::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 276).

**6.94.2.3** `virtual void activemq::commands::ActiveMQTopic::copy (const cms::Destination & source)` [inline, virtual]

Copies the contents of the given Destination object to this one.

### Parameters:

*source* The source Destination object.

Implements `cms::Destination` (p. 1481).

**6.94.2.4** `virtual void activemq::commands::ActiveMQTopic::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

### Returns:

src - Source Object

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 277).

**6.94.2.5** `virtual bool activemq::commands::ActiveMQTopic::equals (const DataStructure * value) const` [inline, virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

References `activemq::commands::ActiveMQDestination::equals()`.

**6.94.2.6** `virtual const cms::Destination* activemq::commands::ActiveMQTopic::getCMSDestination () const` [inline, virtual]

**Returns:**

the `cms::Destination` (p. 1480) interface pointer that the objects that derive from this class implement.

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.94.2.7** `virtual const cms::CMSProperties& activemq::commands::ActiveMQTopic::getCMSProperties () const` [inline, virtual]

Retrieve any properties that might be part of the destination that was specified. This is a deviation from the JMS spec but necessary due to C++ restrictions.

**Returns:**

const reference to a properties object.

Implements `cms::Destination` (p. 1481).

**6.94.2.8** `virtual unsigned char activemq::commands::ActiveMQTopic::getDataStructureType () const` [virtual]

Get the `DataStructure` (p. 1461) Type as defined in `CommandTypes.h`.

**Returns:**

The type of the data structure

Reimplemented from `activemq::commands::ActiveMQDestination` (p. 278).

**6.94.2.9** `virtual cms::Destination::DestinationType activemq::commands::ActiveMQTopic::getDestinationType () const [inline, virtual]`

Retrieve the Destination Type for this Destination.

**Returns:**

The Destination Type

Implements **activemq::commands::ActiveMQDestination** (p. 279).

References **cms::Destination::TOPIC**.

**6.94.2.10** `virtual std::string activemq::commands::ActiveMQTopic::getTopicName () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the name of this topic.

**Returns:**

The topic name.

Implements **cms::Topic** (p. 3215).

**6.94.2.11** `virtual std::string activemq::commands::ActiveMQTopic::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::ActiveMQDestination** (p. 282).

### 6.94.3 Field Documentation

**6.94.3.1** `const unsigned char activemq::commands::ActiveMQTopic::ID_ - ACTIVEMQTOPIC = 101 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ActiveMQTopic.h`

## 6.95 activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 602).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTopicMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller:

### Public Member Functions

- **ActiveMQTopicMarshaller** ()
- virtual **~ActiveMQTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.95.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 602). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.95.2 Constructor & Destructor Documentation

**6.95.2.1** `activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::ActiveMQTopicMarshaller()` `[inline]`

**6.95.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::~~ActiveMQTopicMarshaller()` `[inline, virtual]`

## 6.95.3 Member Function Documentation

**6.95.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.95.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.95.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 286).

**6.95.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 286).

**6.95.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 287).

**6.95.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 287).

**6.95.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller` (p. 288).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTopicMarshaller.h`

## 6.96 activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 606).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTopicMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller:

### Public Member Functions

- **ActiveMQTopicMarshaller** ()
- virtual **~ActiveMQTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.96.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 606). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.96.2 Constructor & Destructor Documentation

**6.96.2.1** `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::ActiveMQTopicMarshaller()` `[inline]`

**6.96.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::~~ActiveMQTopicMarshaller()` `[inline, virtual]`

## 6.96.3 Member Function Documentation

**6.96.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.96.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.96.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 290).

**6.96.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 290).

**6.96.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291).

**6.96.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291).

**6.96.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 292).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTopicMarshaller.h`

## 6.97 activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 610).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTopicMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller:

### Public Member Functions

- **ActiveMQTopicMarshaller** ()
- virtual **~ActiveMQTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.97.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 610). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.97.2 Constructor & Destructor Documentation

**6.97.2.1** `activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::ActiveMQTopicMarshaller()` `[inline]`

**6.97.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::~~ActiveMQTopicMarshaller()` `[inline, virtual]`

## 6.97.3 Member Function Documentation

**6.97.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.97.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.97.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 294).

**6.97.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 294).

**6.97.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 295).

**6.97.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 295).

**6.97.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller` (p. 296).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTopicMarshaller.h`

## 6.98 activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 614).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTopicMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller:

### Public Member Functions

- **ActiveMQTopicMarshaller** ()
- virtual **~ActiveMQTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.98.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 614). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.98.2 Constructor & Destructor Documentation

**6.98.2.1** `activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::ActiveMQTopicMarshaller()` `[inline]`

**6.98.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::~~ActiveMQTopicMarshaller()` `[inline, virtual]`

## 6.98.3 Member Function Documentation

**6.98.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.98.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.98.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 298).

**6.98.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 298).

**6.98.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 299).

**6.98.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::tightMarshal2(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 299).

**6.98.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller` (p. 300).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTopicMarshaller.h`

## 6.99 activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller Class Reference

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 618).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTopicMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller:

### Public Member Functions

- **ActiveMQTopicMarshaller** ()
- virtual **~ActiveMQTopicMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.99.1 Detailed Description

Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 618). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.99.2 Constructor & Destructor Documentation

**6.99.2.1** `activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::ActiveMQTopicMarshaller()` `[inline]`

**6.99.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::~~ActiveMQTopicMarshaller()` `[inline, virtual]`

## 6.99.3 Member Function Documentation

**6.99.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.99.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.99.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 302).

**6.99.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 302).

**6.99.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 303).

**6.99.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 303).

**6.99.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller` (p. 304).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTopicMarshaller.h`

## 6.100 activemq::core::ActiveMQTransactionContext Class Reference

Transaction Management class, hold messages that are to be redelivered upon a request to roll-back.

```
#include <src/main/activemq/core/ActiveMQTransactionContext.h>
```

### Public Member Functions

- **ActiveMQTransactionContext** (**ActiveMQSession** \*session, const **decaf::util::Properties** &properties)  
*Constructor.*
- virtual **~ActiveMQTransactionContext** ()
- virtual void **addSynchronization** (const **Pointer**< **Synchronization** > &sync)  
*Adds a **Synchronization** (p. 3137) to this Transaction.*
- virtual void **removeSynchronization** (const **Pointer**< **Synchronization** > &sync)  
*Removes a **Synchronization** (p. 3137) to this Transaction.*
- virtual void **begin** () throw ( exceptions::ActiveMQException )  
*Begins a new transaction if one is not currently in progress.*
- virtual void **commit** () throw ( exceptions::ActiveMQException )  
*Commit the current Transaction.*
- virtual void **rollback** () throw ( exceptions::ActiveMQException )  
*Rollback the current Transaction.*
- virtual const **decaf::lang::Pointer**< **commands::TransactionId** > & **getTransactionId** () const  
*Get the Transaction Id object for the current Transaction, returns NULL if no transaction is running.*
- virtual bool **isInTransaction** () const  
*Checks to see if there is currently a Transaction in progress returns false if not, true otherwise.*
- virtual int **getMaximumRedeliveries** () const
- virtual long long **getRedeliveryDelay** () const

### 6.100.1 Detailed Description

Transaction Management class, hold messages that are to be redelivered upon a request to roll-back. The Transaction represents an always running transaction, when it is committed or rolled back it silently creates a new transaction for the next set of messages. The only way to permanently end this transaction is to delete it.

Configuration options



transaction.maxRedeliveryCount Max number of times a message can be re-delivered, if the session is rolled back more than this many time, the message is dropped.

transaction.redeliveryDelay Time in Milliseconds between message redelivery for rolled back transactions.

#### Since:

2.0

### 6.100.2 Constructor & Destructor Documentation

#### 6.100.2.1 activemq::core::ActiveMQTransactionContext::ActiveMQTransactionContext (ActiveMQSession \* *session*, const decaf::util::Properties & *properties*)

Constructor.

#### Parameters:

*session* The session that contains this transaction  
*properties* Configuration parameters for this object

#### 6.100.2.2 virtual activemq::core::ActiveMQTransactionContext::~~ActiveMQTransactionContext ( ) [virtual]

### 6.100.3 Member Function Documentation

#### 6.100.3.1 virtual void activemq::core::ActiveMQTransactionContext::addSynchronization (const Pointer< Synchronization > & *sync*) [virtual]

Adds a **Synchronization** (p. 3137) to this Transaction.

#### Parameters:

*sync* - The **Synchronization** (p. 3137) instance to add.

#### 6.100.3.2 virtual void activemq::core::ActiveMQTransactionContext::begin () throw ( exceptions::ActiveMQException ) [virtual]

Begins a new transaction if one is not currently in progress.

#### Exceptions:

*ActiveMQException*

#### 6.100.3.3 virtual void activemq::core::ActiveMQTransactionContext::commit () throw ( exceptions::ActiveMQException ) [virtual]

Commit the current Transaction.

**Exceptions:***ActiveMQException*

**6.100.3.4** `virtual int activemq::core::ActiveMQTransactionContext::getMaximumRedeliveries () const [virtual]`

**Returns:**

The Maximum number of time the client will attempt to redeliver a message from a rolled back transaction before marking the message as not consumed by this client.

**6.100.3.5** `virtual long long activemq::core::ActiveMQTransactionContext::getRedeliveryDelay () const [virtual]`

**Returns:**

The time in Milliseconds that this client is configured to wait in between redelivery attempts for a Message in a rolled back transaction.

**6.100.3.6** `virtual const decaf::lang::Pointer<commands::TransactionId>& activemq::core::ActiveMQTransactionContext::getTransactionId () const [virtual]`

Get the Transaction Id object for the current Transaction, returns NULL if no transaction is running.

**Returns:**

TransactionInfo

**Exceptions:**

*InvalidStateException* if a Transaction is not in progress.

**6.100.3.7** `virtual bool activemq::core::ActiveMQTransactionContext::isInTransaction () const [virtual]`

Checks to see if there is currently a Transaction in progress returns false if not, true otherwise.

**Returns:**

true if a transaction is in progress.

**6.100.3.8** `virtual void activemq::core::ActiveMQTransactionContext::removeSynchronization (const Pointer< Synchronization > & sync) [virtual]`

Removes a **Synchronization** (p. 3137) to this Transaction.

**Parameters:**

*sync* - The **Synchronization** (p. 3137) instance to add.

**6.100.3.9 virtual void activemq::core::ActiveMQTransactionContext::rollback ()  
throw ( exceptions::ActiveMQException ) [virtual]**

Rollback the current Transaction.

**Exceptions:**

*ActiveMQException*

The documentation for this class was generated from the following file:

- src/main/activemq/core/**ActiveMQTransactionContext.h**

## 6.101 decaf::lang::Appendable Class Reference

#include <src/main/decaf/lang/Appendable.h> Inheritance diagram for decaf::lang::Appendable:

### Public Member Functions

- virtual **~Appendable** ()
- virtual **Appendable & append** (char value)=0 throw ( decaf::lang::Exception )  
*Appends the specified character to this **Appendable** (p. 626).*
- virtual **Appendable & append** (const **CharSequence** \*csq)=0 throw ( decaf::lang::Exception )  
*Appends the specified character sequence to this **Appendable** (p. 626).*
- virtual **Appendable & append** (const **CharSequence** \*csq, std::size\_t start, std::size\_t end)=0 throw ( decaf::lang::Exception )  
*Appends a subsequence of the specified character sequence to this **Appendable** (p. 626).*

### 6.101.1 Constructor & Destructor Documentation

6.101.1.1 virtual decaf::lang::Appendable::~~Appendable () [inline, virtual]

### 6.101.2 Member Function Documentation

6.101.2.1 virtual Appendable& decaf::lang::Appendable::append (const **CharSequence** \* *csq*, std::size\_t *start*, std::size\_t *end*) throw ( decaf::lang::Exception ) [pure virtual]

Appends a subsequence of the specified character sequence to this **Appendable** (p. 626).

#### Parameters:

- csq* - The character sequence from which a subsequence will be appended. If csq is NULL, then characters will be appended as if csq contained the string "null".
- start* - The index of the first character in the subsequence
- end* - The index of the character following the last character in the subsequence

#### Returns:

a Reference to this **Appendable** (p. 626)

#### Exceptions:

- Exception* (p. 1574) if an error occurs.
- IndexOutOfBoundsException* start is greater than end, or end is greater than csq.length()

Implemented in **decaf::nio::CharBuffer** (p. 1001).

**6.101.2.2** `virtual Appendable& decaf::lang::Appendable::append (const CharSequence * csq) throw ( decaf::lang::Exception )` [pure virtual]

Appends the specified character sequence to this **Appendable** (p. 626).

**Parameters:**

*csq* - The character sequence from which a subsequence will be appended. If *csq* is NULL, then characters will be appended as if *csq* contained the string "null".

**Returns:**

a Reference to this **Appendable** (p. 626)

**Exceptions:**

*Exception* (p. 1574) if an error occurs.

Implemented in **decaf::nio::CharBuffer** (p. 1002).

**6.101.2.3** `virtual Appendable& decaf::lang::Appendable::append (char value) throw ( decaf::lang::Exception )` [pure virtual]

Appends the specified character to this **Appendable** (p. 626).

**Parameters:**

*value* - The character to append

**Returns:**

a Reference to this **Appendable** (p. 626)

**Exceptions:**

*Exception* (p. 1574) if an error occurs.

Implemented in **decaf::nio::CharBuffer** (p. 1002).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**Appendable.h**

## 6.102 decaf::internal::AprPool Class Reference

Wraps an APR pool object so that classes in decaf can create a static member for use in static methods where apr function calls that need a pool are made.

```
#include <src/main/decaf/internal/AprPool.h>
```

### Public Member Functions

- **AprPool ()**
- **virtual ~AprPool ()**
- **apr\_pool\_t \* getAprPool () const**  
*Gets the internal APR Pool.*
- **void cleanup ()**  
*Clears data that was allocated by this pool.*

### Static Public Member Functions

- **static apr\_pool\_t \* getGlobalPool ()**  
*Gets a pointer to the Global APR Pool used for the Application.*

### 6.102.1 Detailed Description

Wraps an APR pool object so that classes in decaf can create a static member for use in static methods where apr function calls that need a pool are made.

### 6.102.2 Constructor & Destructor Documentation

**6.102.2.1 decaf::internal::AprPool::AprPool ()**

**6.102.2.2 virtual decaf::internal::AprPool::~~AprPool () [virtual]**

### 6.102.3 Member Function Documentation

**6.102.3.1 void decaf::internal::AprPool::cleanup ()**

Clears data that was allocated by this pool. Users should call this after getting the data from the APR functions and copying it to someplace safe.

**6.102.3.2 apr\_pool\_t\* decaf::internal::AprPool::getAprPool () const**

Gets the internal APR Pool.

#### Returns:

the internal APR pool

### 6.102.3.3 static apr\_pool\_t\* decaf::internal::AprPool::getGlobalPool () [static]

Gets a pointer to the Global APR Pool used for the Application.

**Returns:**

pointer to the global APR Pool

The documentation for this class was generated from the following file:

- src/main/decaf/internal/**AprPool.h**

## 6.103 decaf::util::concurrent::atomic::AtomicBoolean Class Reference

A boolean value that may be updated atomically.

```
#include <src/main/decaf/util/concurrent/atomic/AtomicBoolean.h>
```

### Public Member Functions

- **AtomicBoolean** ()  
*Creates a new **AtomicBoolean** (p. 630) whose initial value is false.*
- **AtomicBoolean** (bool initialValue)  
*Creates a new **AtomicBoolean** (p. 630) with the initial value.*
- virtual ~**AtomicBoolean** ()
- bool **get** () const  
*Gets the current value of this **AtomicBoolean** (p. 630).*
- void **set** (bool newValue)  
*Unconditionally sets to the given value.*
- bool **compareAndSet** (bool expect, bool update)  
*Atomically sets the value to the given updated value if the current value == the expected value.*
- bool **getAndSet** (bool newValue)  
*Atomically sets to the given value and returns the previous value.*
- std::string **toString** () const  
*Returns the String representation of the current value.*

### 6.103.1 Detailed Description

A boolean value that may be updated atomically. An **AtomicBoolean** (p. 630) is used in applications such as atomically updated flags, and cannot be used as a replacement for a Boolean.

### 6.103.2 Constructor & Destructor Documentation

#### 6.103.2.1 decaf::util::concurrent::atomic::AtomicBoolean::AtomicBoolean ()

Creates a new **AtomicBoolean** (p. 630) whose initial value is false.

#### 6.103.2.2 decaf::util::concurrent::atomic::AtomicBoolean::AtomicBoolean (bool initialValue)

Creates a new **AtomicBoolean** (p. 630) with the initial value.

#### Parameters:

*initialValue* - The initial value of this boolean.



**6.103.2.3** virtual decaf::util::concurrent::atomic::AtomicBoolean::~~AtomicBoolean  
( ) [inline, virtual]

### 6.103.3 Member Function Documentation

**6.103.3.1** bool decaf::util::concurrent::atomic::AtomicBoolean::compareAndSet  
(bool *expect*, bool *update*)

Atomically sets the value to the given updated value if the current value == the expected value.

**Parameters:**

*expect* - the expected value

*update* - the new value

**Returns:**

true if successful. False return indicates that the actual value was not equal to the expected value.

**6.103.3.2** bool decaf::util::concurrent::atomic::AtomicBoolean::get ( ) const  
[inline]

Gets the current value of this **AtomicBoolean** (p.630).

**Returns:**

the currently set value.

**6.103.3.3** bool decaf::util::concurrent::atomic::AtomicBoolean::getAndSet (bool  
*new Value*)

Atomically sets to the given value and returns the previous value.

**Parameters:**

*new Value* - the new value

**Returns:**

the previous value

**6.103.3.4** void decaf::util::concurrent::atomic::AtomicBoolean::set (bool *new Value*)  
[inline]

Unconditionally sets to the given value.

**Parameters:**

*new Value* - the new value

**6.103.3.5** `std::string decaf::util::concurrent::atomic::AtomicBoolean::toString ()`  
`const`

Returns the String representation of the current value.

**Returns:**

the String representation of the current value.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/atomic/AtomicBoolean.h`

## 6.104 decaf::util::concurrent::atomic::AtomicInteger Class Reference

An int value that may be updated atomically.

#include <src/main/decaf/util/concurrent/atomic/AtomicInteger.h> Inheritance diagram for decaf::util::concurrent::atomic::AtomicInteger:

### Public Member Functions

- **AtomicInteger** ()  
*Create a new **AtomicInteger** (p. 633) with an initial value of 0.*
- **AtomicInteger** (int initialValue)  
*Create a new **AtomicInteger** (p. 633) with the given initial value.*
- virtual **~AtomicInteger** ()
- int **get** () const  
*Gets the current value.*
- void **set** (int newValue)  
*Sets to the given value.*
- int **getAndSet** (int newValue)  
*Atomically sets to the given value and returns the old value.*
- bool **compareAndSet** (int expect, int update)  
*Atomically sets the value to the given updated value if the current value == the expected value.*
- int **getAndIncrement** ()  
*Atomically increments by one the current value.*
- int **getAndDecrement** ()  
*Atomically decrements by one the current value.*
- int **getAndAdd** (int delta)  
*Atomically adds the given value to the current value.*
- int **incrementAndGet** ()  
*Atomically increments by one the current value.*
- int **decrementAndGet** ()  
*Atomically decrements by one the current value.*
- int **addAndGet** (int delta)  
*Atomically adds the given value to the current value.*
- std::string **toString** () const

*Returns the String representation of the current value.*

- int **intValue** () const

*Description copied from class: Number Returns the value of the specified number as an int.*

- long long **longValue** () const

*Description copied from class: Number Returns the value of the specified number as a long.*

- float **floatValue** () const

*Description copied from class: Number Returns the value of the specified number as a float.*

- double **doubleValue** () const

*Description copied from class: Number Returns the value of the specified number as a double.*

### 6.104.1 Detailed Description

An int value that may be updated atomically. An **AtomicInteger** (p. 633) is used in applications such as atomically incremented counters, and cannot be used as a replacement for an Integer. However, this class does extend Number to allow uniform access by tools and utilities that deal with numerically-based classes.

### 6.104.2 Constructor & Destructor Documentation

#### 6.104.2.1 `decaf::util::concurrent::atomic::AtomicInteger::AtomicInteger ()`

Create a new **AtomicInteger** (p. 633) with an initial value of 0.

#### 6.104.2.2 `decaf::util::concurrent::atomic::AtomicInteger::AtomicInteger (int initialValue)`

Create a new **AtomicInteger** (p. 633) with the given initial value.

#### Parameters:

*initialValue* - The initial value of this object.

#### 6.104.2.3 `virtual decaf::util::concurrent::atomic::AtomicInteger::~~AtomicInteger ()` [inline, virtual]

### 6.104.3 Member Function Documentation

#### 6.104.3.1 `int decaf::util::concurrent::atomic::AtomicInteger::addAndGet (int delta)`

Atomically adds the given value to the current value.

#### Parameters:

*delta* - the value to add.

**Returns:**

the updated value.

**6.104.3.2 bool decaf::util::concurrent::atomic::AtomicInteger::compareAndSet (int *expect*, int *update*)**

Atomically sets the value to the given updated value if the current value == the expected value.

**Parameters:**

*expect* - the expected value

*update* - the new value

**Returns:**

true if successful. False return indicates that the actual value was not equal to the expected value.

**6.104.3.3 int decaf::util::concurrent::atomic::AtomicInteger::decrementAndGet ()**

Atomically decrements by one the current value.

**Returns:**

the updated value.

Referenced by decaf::lang::AtomicRefCounter::release().

**6.104.3.4 double decaf::util::concurrent::atomic::AtomicInteger::doubleValue () const [virtual]**

Description copied from class: Number Returns the value of the specified number as a double. This may involve rounding.

**Returns:**

the numeric value represented by this object after conversion to type double.

Implements **decaf::lang::Number** (p. 2433).

**6.104.3.5 float decaf::util::concurrent::atomic::AtomicInteger::floatValue () const [virtual]**

Description copied from class: Number Returns the value of the specified number as a float. This may involve rounding.

**Returns:**

the numeric value represented by this object after conversion to type float.

Implements **decaf::lang::Number** (p. 2433).

**6.104.3.6** `int decaf::util::concurrent::atomic::AtomicInteger::get () const [inline]`

Gets the current value.

**Returns:**

the current value.

**6.104.3.7** `int decaf::util::concurrent::atomic::AtomicInteger::getAndAdd (int delta)`

Atomically adds the given value to the current value.

**Parameters:**

*delta* - The value to add.

**Returns:**

the previous value.

**6.104.3.8** `int decaf::util::concurrent::atomic::AtomicInteger::getAndDecrement ()`

Atomically decrements by one the current value.

**Returns:**

the previous value.

**6.104.3.9** `int decaf::util::concurrent::atomic::AtomicInteger::getAndIncrement ()`

Atomically increments by one the current value.

**Returns:**

the previous value.

**6.104.3.10** `int decaf::util::concurrent::atomic::AtomicInteger::getAndSet (int new Value)`

Atomically sets to the given value and returns the old value.

**Parameters:**

*new Value* - the new value.

**Returns:**

the previous value.

**6.104.3.11 int decaf::util::concurrent::atomic::AtomicInteger::incrementAndGet ()**

Atomically increments by one the current value.

**Returns:**

the updated value.

Referenced by `decaf::lang::AtomicRefCounter::AtomicRefCounter()`.

**6.104.3.12 int decaf::util::concurrent::atomic::AtomicInteger::intValue () const [virtual]**

Description copied from class: Number Returns the value of the specified number as an int. This may involve rounding or truncation.

**Returns:**

the numeric value represented by this object after conversion to type int.

Implements **decaf::lang::Number** (p. 2433).

**6.104.3.13 long long decaf::util::concurrent::atomic::AtomicInteger::longValue () const [virtual]**

Description copied from class: Number Returns the value of the specified number as a long. This may involve rounding or truncation.

**Returns:**

the numeric value represented by this object after conversion to type long long.

Implements **decaf::lang::Number** (p. 2433).

**6.104.3.14 void decaf::util::concurrent::atomic::AtomicInteger::set (int *newValue*) [inline]**

Sets to the given value.

**Parameters:**

*newValue* - the new value

**6.104.3.15 std::string decaf::util::concurrent::atomic::AtomicInteger::toString () const**

Returns the String representation of the current value.

**Returns:**

the String representation of the current value.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/atomic/AtomicInteger.h`

## 6.105 decaf::lang::AtomicRefCounter Class Reference

```
#include <src/main/decaf/lang/Pointer.h>
```

Inherited by `decaf::lang::Pointer< activemq::threads::TaskRunner >`, `decaf::lang::Pointer< ActiveMQDestination >`, `decaf::lang::Pointer< ActiveMQTransactionContext >`, `decaf::lang::Pointer< BackupTransportPool >`, `decaf::lang::Pointer< BooleanExpression >`, `decaf::lang::Pointer< BrokerError >`, `decaf::lang::Pointer< BrokerId >`, `decaf::lang::Pointer< CloseTransportsTask >`, `decaf::lang::Pointer< cms::Destination >`, `decaf::lang::Pointer< commands::BrokerInfo >`, `decaf::lang::Pointer< commands::ConnectionInfo >`, `decaf::lang::Pointer< commands::ConsumerId >`, `decaf::lang::Pointer< commands::ConsumerInfo >`, `decaf::lang::Pointer< commands::Message >`, `decaf::lang::Pointer< commands::MessageAck >`, `decaf::lang::Pointer< commands::ProducerInfo >`, `decaf::lang::Pointer< commands::SessionInfo >`, `decaf::lang::Pointer< commands::TransactionId >`, `decaf::lang::Pointer< commands::WireFormatInfo >`, `decaf::lang::Pointer< Comparator< E > >`, `decaf::lang::Pointer< CompositeTaskRunner >`, `decaf::lang::Pointer< ConnectionId >`, `decaf::lang::Pointer< ConnectionInfo >`, `decaf::lang::Pointer< ConsumerId >`, `decaf::lang::Pointer< ConsumerInfo >`, `decaf::lang::Pointer< core::ActiveMQAckHandler >`, `decaf::lang::Pointer< DataStructure >`, `decaf::lang::Pointer< decaf::lang::Runnable >`, `decaf::lang::Pointer< decaf::lang::Thread >`, `decaf::lang::Pointer< decaf::util::Properties >`, `decaf::lang::Pointer< Exception >`, `decaf::lang::Pointer< InactivityMonitorData >`, `decaf::lang::Pointer< LockHandle >`, `decaf::lang::Pointer< Message >`, `decaf::lang::Pointer< MessageAck >`, `decaf::lang::Pointer< MessageId >`, `decaf::lang::Pointer< ProducerId >`, `decaf::lang::Pointer< ProducerInfo >`, `decaf::lang::Pointer< Response >`, `decaf::lang::Pointer< ResponseBuilder >`, `decaf::lang::Pointer< SessionId >`, `decaf::lang::Pointer< SessionInfo >`, `decaf::lang::Pointer< Tracked >`, `decaf::lang::Pointer< TransactionId >`, `decaf::lang::Pointer< Transport >`, `decaf::lang::Pointer< transport::Transport >`, `decaf::lang::Pointer< TransportListener >`, `decaf::lang::Pointer< URI >`, `decaf::lang::Pointer< URIPool >`, and `decaf::lang::Pointer< wireformat::WireFormat >`.

### Public Member Functions

- `AtomicRefCounter ()`
- `AtomicRefCounter (const AtomicRefCounter &other)`

### Protected Member Functions

- `void swap (AtomicRefCounter &other)`

*Swaps this instance's reference counter with the one given, this allows for copy-and-swap semantics of this object.*

- `bool release ()`

*Removes a reference to the counter Atomically and returns if the counter has reached zero, once the counter hits zero, the internal counter is destroyed and this instance is now considered to be unreferenced.*



## 6.105.1 Constructor & Destructor Documentation

**6.105.1.1** `decaf::lang::AtomicRefCounter::AtomicRefCounter () [inline]`

**6.105.1.2** `decaf::lang::AtomicRefCounter::AtomicRefCounter (const AtomicRefCounter & other) [inline]`

References `decaf::util::concurrent::atomic::AtomicInteger::incrementAndGet()`.

## 6.105.2 Member Function Documentation

**6.105.2.1** `bool decaf::lang::AtomicRefCounter::release () [inline, protected]`

Removes a reference to the counter Atomically and returns if the counter has reached zero, once the counter hits zero, the internal counter is destroyed and this instance is now considered to be unreferenced.

### Returns:

true if the count is now zero.

Reimplemented in `decaf::lang::Pointer< commands::ConsumerId >` (p. 2502), `decaf::lang::Pointer< MessageAck >` (p. 2502), `decaf::lang::Pointer< BooleanExpression >` (p. 2502), `decaf::lang::Pointer< BrokerError >` (p. 2502), `decaf::lang::Pointer< Transport >` (p. 2502), `decaf::lang::Pointer< wireformat::WireFormat >` (p. 2502), `decaf::lang::Pointer< CloseTransportsTask >` (p. 2502), `decaf::lang::Pointer< CompositeTaskRunner >` (p. 2502), `decaf::lang::Pointer< commands::WireFormatInfo >` (p. 2502), `decaf::lang::Pointer< ActiveMQTransactionContext >` (p. 2502), `decaf::lang::Pointer< commands::ProducerInfo >` (p. 2502), `decaf::lang::Pointer< Comparator< E > >` (p. 2502), `decaf::lang::Pointer< BrokerId >` (p. 2502), `decaf::lang::Pointer< commands::SessionInfo >` (p. 2502), `decaf::lang::Pointer< Message >` (p. 2502), `decaf::lang::Pointer< URI >` (p. 2502), `decaf::lang::Pointer< DataStructure >` (p. 2502), `decaf::lang::Pointer< commands::ConnectionInfo >` (p. 2502), `decaf::lang::Pointer< activemq::threads::TaskRunner >` (p. 2502), `decaf::lang::Pointer< LockHandle >` (p. 2502), `decaf::lang::Pointer< ConsumerInfo >` (p. 2502), `decaf::lang::Pointer< ConnectionId >` (p. 2502), `decaf::lang::Pointer< decaf::lang::Runnable >` (p. 2502), `decaf::lang::Pointer< BackupTransportPool >` (p. 2502), `decaf::lang::Pointer< commands::BrokerInfo >` (p. 2502), `decaf::lang::Pointer< ProducerInfo >` (p. 2502), `decaf::lang::Pointer< decaf::lang::Thread >` (p. 2502), `decaf::lang::Pointer< MessageId >` (p. 2502), `decaf::lang::Pointer< Response >` (p. 2502), `decaf::lang::Pointer< SessionId >` (p. 2502), `decaf::lang::Pointer< cms::Destination >` (p. 2502), `decaf::lang::Pointer< TransportListener >` (p. 2502), `decaf::lang::Pointer< commands::TransactionId >` (p. 2502), `decaf::lang::Pointer< ActiveMQDestination >` (p. 2502), `decaf::lang::Pointer< ProducerId >` (p. 2502), `decaf::lang::Pointer< ResponseBuilder >` (p. 2502), `decaf::lang::Pointer< SessionInfo >` (p. 2502), `decaf::lang::Pointer< commands::Message >` (p. 2502), `decaf::lang::Pointer< transport::Transport >` (p. 2502), `decaf::lang::Pointer< InactivityMonitorData >` (p. 2502), `decaf::lang::Pointer< Tracked >` (p. 2502), `decaf::lang::Pointer< ConnectionInfo >` (p. 2502), `decaf::lang::Pointer< commands::MessageAck >` (p. 2502), `decaf::lang::Pointer< core::ActiveMQAckHandler >` (p. 2502), `decaf::lang::Pointer< Exception >` (p. 2502), `decaf::lang::Pointer< commands::ConsumerInfo >` (p. 2502), `decaf::lang::Pointer< ConsumerId >` (p. 2502), `decaf::lang::Pointer<`

**URIPool** > (p. 2502), **decaf::lang::Pointer**< **decaf::util::Properties** > (p. 2502), and **decaf::lang::Pointer**< **TransactionId** > (p. 2502).

References `decaf::util::concurrent::atomic::AtomicInteger::decrementAndGet()`.

**6.105.2.2** `void decaf::lang::AtomicRefCounter::swap (AtomicRefCounter & other)`  
[inline, protected]

Swaps this instance's reference counter with the one given, this allows for copy-and-swap semantics of this object.

**Parameters:**

*other* The value to swap with this one's.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Pointer.h`

## 6.106 decaf::util::concurrent::atomic::AtomicReference< T > Class Template Reference

An Pointer reference that may be updated atomically.

```
#include <src/main/decaf/util/concurrent/atomic/AtomicReference.h>
```

### Public Member Functions

- **AtomicReference** ()
- **AtomicReference** (T \*value)
- virtual ~**AtomicReference** ()
- T \* **get** () const

*Gets the Current Value.*

- void **set** (T \*newValue)

*Sets the Current value of this Reference.*

- bool **compareAndSet** (T \*expect, T \*update)

*Atomically sets the value to the given updated value if the current value == the expected value.*

- T \* **getAndSet** (T \*newValue)

*Atomically sets to the given value and returns the old value.*

- std::string **toString** () const

*Returns the String representation of the current value.*

### 6.106.1 Detailed Description

```
template<typename T> class decaf::util::concurrent::atomic::AtomicReference< T >
```

An Pointer reference that may be updated atomically.

## 6.106.2 Constructor & Destructor Documentation

**6.106.2.1** `template<typename T >  
decaf::util::concurrent::atomic::AtomicReference< T  
>::AtomicReference () [inline]`

**6.106.2.2** `template<typename T >  
decaf::util::concurrent::atomic::AtomicReference< T  
>::AtomicReference (T * value) [inline]`

**6.106.2.3** `template<typename T > virtual  
decaf::util::concurrent::atomic::AtomicReference< T  
>::~~AtomicReference () [inline, virtual]`

## 6.106.3 Member Function Documentation

**6.106.3.1** `template<typename T > bool  
decaf::util::concurrent::atomic::AtomicReference< T  
>::compareAndSet (T * expect, T * update) [inline]`

Atomically sets the value to the given updated value if the current value == the expected value.

### Parameters:

*expect* - the expected value

*update* - the new value

### Returns:

true if successful. False return indicates that the actual value was not equal to the expected value.

**6.106.3.2** `template<typename T > T*  
decaf::util::concurrent::atomic::AtomicReference< T >::get  
( ) const [inline]`

Gets the Current Value.

### Returns:

the current value of this Reference.

**6.106.3.3** `template<typename T > T*  
decaf::util::concurrent::atomic::AtomicReference< T  
>::getAndSet (T * new Value) [inline]`

Atomically sets to the given value and returns the old value.

### Parameters:

*new Value*- the new value

### Returns:

the previous value.

**6.106.3.4**   `template<typename T > void  
          decaf::util::concurrent::atomic::AtomicReference< T >::set  
          (T * new Value)   [inline]`

Sets the Current value of this Reference.

**Parameters:**

*new Value*   The new Value of this Reference.

**6.106.3.5**   `template<typename T > std::string  
          decaf::util::concurrent::atomic::AtomicReference< T  
          >::toString () const   [inline]`

Returns the String representation of the current value.

**Returns:**

    string representation of the current value.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/atomic/AtomicReference.h`

## 6.107 activemq::transport::failover::BackupTransport Class Reference

#include <src/main/activemq/transport/failover/BackupTransport.h> Inheritance diagram for activemq::transport::failover::BackupTransport:

### Public Member Functions

- **BackupTransport** (**BackupTransportPool** \*failover)
- virtual **~BackupTransport** ()
- **decaf::net::URI** **getUri** () const  
*Gets the URI assigned to this Backup.*
- void **setUri** (const **decaf::net::URI** &uri)  
*Sets the URI assigned to this **Transport** (p. 3273).*
- const **Pointer**< **Transport** > & **getTransport** ()  
*Gets the currently held transport.*
- void **setTransport** (const **Pointer**< **Transport** > &transport)  
*Sets the held transport, if not NULL then start to listen for exceptions from the held transport.*
- virtual void **onException** (const **decaf::lang::Exception** &ex)  
*Event handler for an exception from a command transport.*
- bool **isClosed** () const  
*Has the **Transport** (p. 3273) been shutdown and no longer usable.*
- void **setClosed** (bool value)  
*Sets the closed flag on this **Transport** (p. 3273).*

### 6.107.1 Constructor & Destructor Documentation

- 6.107.1.1 **activemq::transport::failover::BackupTransport::BackupTransport** (**BackupTransportPool** \* failover)
- 6.107.1.2 virtual **activemq::transport::failover::BackupTransport::~~BackupTransport** ()  
[virtual]

### 6.107.2 Member Function Documentation

- 6.107.2.1 const **Pointer**<**Transport**>& **activemq::transport::failover::BackupTransport::getTransport** () [inline]

Gets the currently held transport.

**Returns:**

pointer to the held transport or NULL if not set.

**6.107.2.2    decaf::net::URI activemq::transport::failover::BackupTransport::getUri () const [inline]**

Gets the URI assigned to this Backup.

**Returns:**

the assigned URI

**6.107.2.3    bool activemq::transport::failover::BackupTransport::isClosed () const [inline]**

Has the **Transport** (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the **Transport** (p. 3273)

**6.107.2.4    virtual void activemq::transport::failover::BackupTransport::onException (const decaf::lang::Exception & *ex*) [virtual]**

Event handler for an exception from a command transport. The **BackupTransport** (p. 644) closes its internal **Transport** (p. 3273) when an exception is received and returns the URI to the pool of URIs to attempt connections to.

**Parameters:**

*ex* The exception that was passed to this listener to handle.

Implements **activemq::transport::TransportListener** (p. 3290).

**6.107.2.5    void activemq::transport::failover::BackupTransport::setClosed (bool *value*) [inline]**

Sets the closed flag on this **Transport** (p. 3273).

**Parameters:**

*value* - true for closed.

**6.107.2.6    void activemq::transport::failover::BackupTransport::setTransport (const Pointer< Transport > & *transport*) [inline]**

Sets the held transport, if not NULL then start to listen for exceptions from the held transport.

**Parameters:**

*transport* The transport to hold.

**6.107.2.7** `void activemq::transport::failover::BackupTransport::setUri (const decaf::net::URI & uri) [inline]`

Sets the URI assigned to this **Transport** (p. 3273).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/failover/BackupTransport.h`



## 6.108 activemq::transport::failover::BackupTransportPool Class Reference

#include <src/main/activemq/transport/failover/BackupTransportPool.h> Inheritance diagram for activemq::transport::failover::BackupTransportPool:

### Public Member Functions

- **BackupTransportPool** (const **Pointer**< **CompositeTaskRunner** > &taskRunner, const **Pointer**< **CloseTransportsTask** > &closeTask, const **Pointer**< **URIPool** > &uriPool)
- **BackupTransportPool** (int backupPoolSize, const **Pointer**< **CompositeTaskRunner** > &taskRunner, const **Pointer**< **CloseTransportsTask** > &closeTask, const **Pointer**< **URIPool** > &uriPool)
- virtual ~**BackupTransportPool** ()
- virtual bool **isPending** () const  
*Return true if we don't currently have enough Connected Transports.*
- **Pointer**< **BackupTransport** > **getBackup** ()  
*Get a Connected **Transport** (p. 3273) from the pool of Backups if any are present, otherwise it return a NULL Pointer.*
- virtual bool **iterate** ()  
*Connect to a Backup Broker if we haven't already connected to the max number of Backups.*
- int **getBackupPoolSize** () const  
*Gets the Max number of Backups this Task will create.*
- void **setBackupPoolSize** (int size)  
*Sets the Max number of Backups this Task will create.*
- bool **isEnabled** () const  
*Gets if the backup **Transport** (p. 3273) Pool has been enabled or not, when not enabled no backups are created and any that were are destroyed.*
- void **setEnabled** (bool value)  
*Sets if this Backup **Transport** (p. 3273) Pool is enabled.*

### Friends

- class **BackupTransport**

## 6.108.1 Constructor & Destructor Documentation

**6.108.1.1** `activemq::transport::failover::BackupTransportPool::BackupTransportPool (const Pointer< CompositeTaskRunner > & taskRunner, const Pointer< CloseTransportsTask > & closeTask, const Pointer< URIPool > & uriPool)`

**6.108.1.2** `activemq::transport::failover::BackupTransportPool::BackupTransportPool (int backupPoolSize, const Pointer< CompositeTaskRunner > & taskRunner, const Pointer< CloseTransportsTask > & closeTask, const Pointer< URIPool > & uriPool)`

**6.108.1.3** `virtual  
activemq::transport::failover::BackupTransportPool::~~BackupTransportPool  
( ) [virtual]`

## 6.108.2 Member Function Documentation

**6.108.2.1** `Pointer<BackupTransport> activemq::transport::failover::BackupTransportPool::getBackup  
( )`

Get a Connected **Transport** (p. 3273) from the pool of Backups if any are present, otherwise it return a NULL Pointer.

### Returns:

Pointer to a Connected **Transport** (p. 3273) or NULL

**6.108.2.2** `int activemq::transport::failover::BackupTransportPool::getBackupPoolSize ( )  
const [inline]`

Gets the Max number of Backups this Task will create.

### Returns:

the max number of active BackupTransports that will be created.

**6.108.2.3** `bool activemq::transport::failover::BackupTransportPool::isEnabled ( )  
const [inline]`

Gets if the backup **Transport** (p. 3273) Pool has been enabled or not, when not enabled no backups are created and any that were are destroyed.

### Returns:

true if enable.

**6.108.2.4** `virtual bool activemq::transport::failover::BackupTransportPool::isPending () const` [virtual]

Return true if we don't currently have enough Connected Transports.

Implements **activemq::threads::CompositeTask** (p. 1090).

**6.108.2.5** `virtual bool activemq::transport::failover::BackupTransportPool::iterate ()` [virtual]

Connect to a Backup Broker if we haven't already connected to the max number of Backups.

Implements **activemq::threads::Task** (p. 3148).

**6.108.2.6** `void activemq::transport::failover::BackupTransportPool::setBackupPoolSize (int size)` [inline]

Sets the Max number of Backups this Task will create.

**Parameters:**

*size* - the max number of active BackupTransports that will be created.

**6.108.2.7** `void activemq::transport::failover::BackupTransportPool::setEnabled (bool value)`

Sets if this Backup **Transport** (p. 3273) Pool is enabled. When not enabled no Backups are created and any that were are destroyed.

**Parameters:**

*value* - true to enable backup creation, false to disable.

## 6.108.3 Friends And Related Function Documentation

**6.108.3.1** `friend class BackupTransport` [friend]

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/failover/BackupTransportPool.h`

## 6.109 activemq::commands::BaseCommand Class Reference

#include <src/main/activemq/commands/BaseCommand.h> Inheritance diagram for activemq::commands::BaseCommand:

### Public Member Functions

- **BaseCommand** ()
- virtual **~BaseCommand** ()
- virtual void **setCommandId** (int id)  
*Sets the **Command** (p. 1063) Id of this **Message** (p. 2145).*
- virtual int **getCommandId** () const  
*Gets the **Command** (p. 1063) Id of this **Message** (p. 2145).*
- virtual void **setResponseRequired** (const bool required)  
*Set if this **Message** (p. 2145) requires a **Response** (p. 2781).*
- virtual bool **isResponseRequired** () const  
*Is a **Response** (p. 2781) required for this **Command** (p. 1063).*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isConnectionInfo** () const
- virtual bool **isConsumerInfo** () const
- virtual bool **isBrokerInfo** () const
- virtual bool **isMessage** () const
- virtual bool **isMessageAck** () const
- virtual bool **isKeepAliveInfo** () const
- virtual bool **isMessageDispatch** () const
- virtual bool **isMessageDispatchNotification** () const
- virtual bool **isProducerAck** () const
- virtual bool **isProducerInfo** () const
- virtual bool **isResponse** () const
- virtual bool **isRemoveInfo** () const
- virtual bool **isRemoveSubscriptionInfo** () const
- virtual bool **isShutdownInfo** () const
- virtual bool **isTransactionInfo** () const
- virtual bool **isWireFormatInfo** () const

## 6.109.1 Constructor & Destructor Documentation

**6.109.1.1** `activemq::commands::BaseCommand::BaseCommand ()` [inline]

**6.109.1.2** `virtual activemq::commands::BaseCommand::~~BaseCommand ()`  
[inline, virtual]

## 6.109.2 Member Function Documentation

**6.109.2.1** `virtual void activemq::commands::BaseCommand::copyDataStructure (const DataStructure * src)` [inline, virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

### Returns:

src - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 173), `activemq::commands::ActiveMQBytesMessage` (p. 201), `activemq::commands::ActiveMQMapMessage` (p. 312), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 467), `activemq::commands::ActiveMQTextMessage` (p. 575), `activemq::commands::BrokerError` (p. 746), `activemq::commands::BrokerInfo` (p. 777), `activemq::commands::ConnectionControl` (p. 1136), `activemq::commands::ConnectionError` (p. 1161), `activemq::commands::ConnectionInfo` (p. 1213), `activemq::commands::ConsumerControl` (p. 1251), `activemq::commands::ConsumerInfo` (p. 1302), `activemq::commands::ControlCommand` (p. 1331), `activemq::commands::DataArrayResponse` (p. 1357), `activemq::commands::DataResponse` (p. 1396), `activemq::commands::DestinationInfo` (p. 1485), `activemq::commands::ExceptionResponse` (p. 1583), `activemq::commands::FlushCommand` (p. 1677), `activemq::commands::IntegerResponse` (p. 1778), `activemq::commands::KeepAliveInfo` (p. 1931), `activemq::commands::Message` (p. 2150), `activemq::commands::MessageAck` (p. 2189), `activemq::commands::MessageDispatch` (p. 2220), `activemq::commands::MessageDispatchNotification` (p. 2252), `activemq::commands::MessagePull` (p. 2347), `activemq::commands::ProducerAck` (p. 2580), `activemq::commands::ProducerInfo` (p. 2632), `activemq::commands::RemoveInfo` (p. 2704), `activemq::commands::RemoveSubscriptionInfo` (p. 2728), `activemq::commands::ReplayCommand` (p. 2753), `activemq::commands::Response` (p. 2782), `activemq::commands::SessionInfo` (p. 2878), `activemq::commands::ShutdownInfo` (p. 2935), `activemq::commands::TransactionInfo` (p. 3241), and `activemq::commands::WireFormatInfo` (p. 3372).

References `getCommandId()`, and `isResponseRequired()`.

**6.109.2.2** `virtual bool activemq::commands::BaseCommand::equals (const DataStructure * value) const` [inline, virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 174), `activemq::commands::ActiveMQBytesMessage` (p. 201), `activemq::commands::ActiveMQMapMessage` (p. 312), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQMessageTemplate< T >` (p. 369), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 468), `activemq::commands::ActiveMQTextMessage` (p. 575), `activemq::commands::BrokerInfo` (p. 777), `activemq::commands::ConnectionControl` (p. 1137), `activemq::commands::ConnectionError` (p. 1161), `activemq::commands::ConnectionInfo` (p. 1213), `activemq::commands::ConsumerControl` (p. 1252), `activemq::commands::ConsumerInfo` (p. 1303), `activemq::commands::ControlCommand` (p. 1331), `activemq::commands::DataArrayResponse` (p. 1357), `activemq::commands::DataResponse` (p. 1396), `activemq::commands::DestinationInfo` (p. 1486), `activemq::commands::ExceptionResponse` (p. 1583), `activemq::commands::FlushCommand` (p. 1677), `activemq::commands::IntegerResponse` (p. 1778), `activemq::commands::KeepAliveInfo` (p. 1931), `activemq::commands::Message` (p. 2150), `activemq::commands::MessageAck` (p. 2190), `activemq::commands::MessageDispatch` (p. 2221), `activemq::commands::MessageDispatchNotification` (p. 2253), `activemq::commands::MessagePull` (p. 2348), `activemq::commands::ProducerAck` (p. 2580), `activemq::commands::ProducerInfo` (p. 2633), `activemq::commands::RemoveInfo` (p. 2704), `activemq::commands::RemoveSubscriptionInfo` (p. 2729), `activemq::commands::ReplayCommand` (p. 2753), `activemq::commands::Response` (p. 2782), `activemq::commands::SessionInfo` (p. 2878), `activemq::commands::ShutdownInfo` (p. 2935), `activemq::commands::TransactionInfo` (p. 3241), `activemq::commands::WireFormatInfo` (p. 3372), `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 369), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 369).

References `activemq::commands::BaseDataStructure::equals()`.

### 6.109.2.3 `virtual int activemq::commands::BaseCommand::getCommandId () const` [inline, virtual]

Gets the **Command** (p. 1063) Id of this **Message** (p. 2145).

**Returns:**

**Command** (p. 1063) Id

Implements `activemq::commands::Command` (p. 1064).

Referenced by `copyDataStructure()`.

**6.109.2.4** `virtual bool activemq::commands::BaseCommand::isBrokerInfo () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1064).

Reimplemented in `activemq::commands::BrokerInfo` (p. 779).

**6.109.2.5** `virtual bool activemq::commands::BaseCommand::isConnectionInfo () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1064).

Reimplemented in `activemq::commands::ConnectionInfo` (p. 1214).

**6.109.2.6** `virtual bool activemq::commands::BaseCommand::isConsumerInfo () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1064).

Reimplemented in `activemq::commands::ConsumerInfo` (p. 1304).

**6.109.2.7** `virtual bool activemq::commands::BaseCommand::isKeepAliveInfo () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1064).

Reimplemented in `activemq::commands::KeepAliveInfo` (p. 1932).

**6.109.2.8** `virtual bool activemq::commands::BaseCommand::isMessage () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1064).

Reimplemented in `activemq::commands::Message` (p. 2156).

**6.109.2.9** `virtual bool activemq::commands::BaseCommand::isMessageAck () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::MessageAck` (p. 2191).

**6.109.2.10** `virtual bool activemq::commands::BaseCommand::isMessageDispatch () const`  
[inline, virtual]

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::MessageDispatch` (p. 2222).

**6.109.2.11** `virtual bool activemq::commands::BaseCommand::isMessageDispatchNotification () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::MessageDispatchNotification` (p. 2254).

**6.109.2.12** `virtual bool activemq::commands::BaseCommand::isProducerAck () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::ProducerAck` (p. 2581).

**6.109.2.13** `virtual bool activemq::commands::BaseCommand::isProducerInfo () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::ProducerInfo` (p. 2634).

**6.109.2.14** `virtual bool activemq::commands::BaseCommand::isRemoveInfo () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::RemoveInfo` (p. 2705).

**6.109.2.15** `virtual bool activemq::commands::BaseCommand::isRemoveSubscriptionInfo () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::RemoveSubscriptionInfo` (p. 2730).

**6.109.2.16** `virtual bool activemq::commands::BaseCommand::isResponse () const [inline, virtual]`

Implements `activemq::commands::Command` (p. 1065).

Reimplemented in `activemq::commands::Response` (p. 2783).

**6.109.2.17** `virtual bool activemq::commands::BaseCommand::isResponseRequired () const [inline, virtual]`

Is a **Response** (p. 2781) required for this **Command** (p. 1063).

#### Returns:

true if a response is required.



Implements **activemq::commands::Command** (p. 1066).

Referenced by `copyDataStructure()`.

**6.109.2.18** `virtual bool activemq::commands::BaseCommand::isShutdownInfo ()`  
`const [inline, virtual]`

Implements **activemq::commands::Command** (p. 1066).

Reimplemented in **activemq::commands::ShutdownInfo** (p. 2936).

**6.109.2.19** `virtual bool activemq::commands::BaseCommand::isTransactionInfo ()`  
`const [inline, virtual]`

Implements **activemq::commands::Command** (p. 1066).

Reimplemented in **activemq::commands::TransactionInfo** (p. 3242).

**6.109.2.20** `virtual bool activemq::commands::BaseCommand::isWireFormatInfo ()`  
`const [inline, virtual]`

Implements **activemq::commands::Command** (p. 1066).

Reimplemented in **activemq::commands::WireFormatInfo** (p. 3376).

**6.109.2.21** `virtual void activemq::commands::BaseCommand::setCommandId (int`  
`id) [inline, virtual]`

Sets the **Command** (p. 1063) Id of this **Message** (p. 2145).

**Parameters:**

*id* **Command** (p. 1063) Id

Implements **activemq::commands::Command** (p. 1066).

**6.109.2.22** `virtual void activemq::commands::BaseCommand::setResponseRequired`  
`(const bool required) [inline, virtual]`

Set if this **Message** (p. 2145) requires a **Response** (p. 2781).

**Parameters:**

*required* true if response is required

Implements **activemq::commands::Command** (p. 1066).

**6.109.2.23** `virtual std::string activemq::commands::BaseCommand::toString ()`  
`const [inline, virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Implements **activemq::commands::Command** (p. 1067).

Reimplemented in **activemq::commands::ActiveMQBlobMessage** (p. 176), **activemq::commands::ActiveMQBytesMessage** (p. 208), **activemq::commands::ActiveMQMapMessage** (p. 320), **activemq::commands::ActiveMQMessage** (p. 344), **activemq::commands::ActiveMQObjectMessage** (p. 385), **activemq::commands::ActiveMQStreamMessage** (p. 474), **activemq::commands::ActiveMQTextMessage** (p. 577), **activemq::commands::BrokerInfo** (p. 780), **activemq::commands::ConnectionControl** (p. 1138), **activemq::commands::ConnectionError** (p. 1162), **activemq::commands::ConnectionInfo** (p. 1215), **activemq::commands::ConsumerControl** (p. 1253), **activemq::commands::ConsumerInfo** (p. 1305), **activemq::commands::ControlCommand** (p. 1332), **activemq::commands::DataArrayResponse** (p. 1358), **activemq::commands::DataResponse** (p. 1397), **activemq::commands::DestinationInfo** (p. 1487), **activemq::commands::ExceptionResponse** (p. 1584), **activemq::commands::FlushCommand** (p. 1678), **activemq::commands::IntegerResponse** (p. 1779), **activemq::commands::KeepAliveInfo** (p. 1932), **activemq::commands::Message** (p. 2159), **activemq::commands::MessageAck** (p. 2192), **activemq::commands::MessageDispatch** (p. 2222), **activemq::commands::MessageDispatchNotification** (p. 2255), **activemq::commands::MessagePull** (p. 2349), **activemq::commands::ProducerAck** (p. 2581), **activemq::commands::ProducerInfo** (p. 2634), **activemq::commands::RemoveInfo** (p. 2705), **activemq::commands::RemoveSubscriptionInfo** (p. 2730), **activemq::commands::ReplayCommand** (p. 2754), **activemq::commands::Response** (p. 2783), **activemq::commands::SessionInfo** (p. 2879), **activemq::commands::ShutdownInfo** (p. 2936), **activemq::commands::TransactionInfo** (p. 3243), and **activemq::commands::WireFormatInfo** (p. 3378).

References **activemq::commands::BaseDataStructure::toString()**.

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/BaseCommand.h`

## 6.110 activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 657).

#include <src/main/activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller:

### Public Member Functions

- **BaseCommandMarshaller** ()
- virtual **~BaseCommandMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.110.1 Detailed Description

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 657). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.110.2 Constructor & Destructor Documentation

**6.110.2.1** `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::BaseCommandMarshaller()` [inline]

**6.110.2.2** `virtual activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::~~BaseCommandMarshaller()` [inline, virtual]

## 6.110.3 Member Function Documentation

**6.110.3.1** `virtual void activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 178), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 214), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 323), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 346), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 387), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 480), `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 579), `activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller` (p. 784), `activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller` (p. 1141), `activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller` (p. 1165), `activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller` (p. 1218), `activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller` (p. 1256), `activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller` (p. 1310), `activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller` (p. 1335), `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1360), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1399), `activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller` (p. 1494), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1594), `activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller` (p. 1688), `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1789), `activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller` (p. 1942), `activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller` (p. 2203), `activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller` (p. 2240), `activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller`

(p. 2266), [activemq::wireformat::openwire::marshal::v3::MessageMarshaller](#) (p. 2316), [activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller](#) (p. 2356), [activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller](#) (p. 2588), [activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller](#) (p. 2641), [activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller](#) (p. 2720), [activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller](#) (p. 2745), [activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller](#) (p. 2761), [activemq::wireformat::openwire::marshal::v3::ResponseMarshaller](#) (p. 2797), [activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller](#) (p. 2898), [activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller](#) (p. 2946), and [activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller](#) (p. 3250).

**6.110.3.2 virtual void activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataIn* - BinaryReader that provides that data source

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Implements [activemq::wireformat::openwire::marshal::DataStreamMarshaller](#) (p. 1436).

Reimplemented in [activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller](#) (p. 179), [activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller](#) (p. 215), [activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller](#) (p. 324), [activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller](#) (p. 347), [activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller](#) (p. 388), [activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller](#) (p. 481), [activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller](#) (p. 580), [activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller](#) (p. 785), [activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller](#) (p. 1142), [activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller](#) (p. 1166), [activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller](#) (p. 1219), [activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller](#) (p. 1257), [activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller](#) (p. 1311), [activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller](#) (p. 1336), [activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller](#) (p. 1361), [activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller](#) (p. 1400), [activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller](#) (p. 1495), [activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller](#) (p. 1595), [activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller](#) (p. 1689), [activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller](#) (p. 1790), [activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller](#) (p. 1943),

**activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller** (p. 2204), **activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller** (p. 2241), **activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller** (p. 2267), **activemq::wireformat::openwire::marshal::v3::MessageMarshaller** (p. 2316), **activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller** (p. 2357), **activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller** (p. 2589), **activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller** (p. 2642), **activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller** (p. 2721), **activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller** (p. 2746), **activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller** (p. 2762), **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2798), **activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller** (p. 2899), **activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller** (p. 2947), and **activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller** (p. 3251).

**6.110.3.3 virtual int activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::tightMarshal1**  
**(OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller** (p. 179), **activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller** (p. 215), **activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller** (p. 324), **activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller** (p. 347), **activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller** (p. 388), **activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller** (p. 481), **activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller** (p. 580), **activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller** (p. 785), **activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller** (p. 1142), **activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller** (p. 1166), **activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller** (p. 1219), **activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller** (p. 1257), **activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller** (p. 1311), **activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller** (p. 1336), **activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller** (p. 1361),

activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller (p. 1400),  
 activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller (p. 1495),  
 activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller (p. 1595),  
 activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller (p. 1689),  
 activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller (p. 1790),  
 activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller (p. 1943),  
 activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller (p. 2204),  
 activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller (p. 2241),  
 activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller  
 (p. 2267),  
 activemq::wireformat::openwire::marshal::v3::MessageMarshaller (p. 2317),  
 activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller (p. 2357),  
 activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller (p. 2589),  
 activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller (p. 2642),  
 activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller (p. 2721),  
 activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller  
 (p. 2746),  
 activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller  
 (p. 2762),  
 activemq::wireformat::openwire::marshal::v3::ResponseMarshaller (p. 2798),  
 activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller (p. 2899),  
 activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller (p. 2947),  
 and  
 activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller (p. 3251).

**6.110.3.4 virtual void** `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::tightMarshal2`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller`  
 (p. 179), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller`  
 (p. 215), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller`  
 (p. 324), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller`  
 (p. 347), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller`  
 (p. 388), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller`  
 (p. 481), `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller`  
 (p. 580), `activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller` (p. 785),  
`activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller` (p. 1142),  
`activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller` (p. 1166),  
`activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller` (p. 1219),

activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller (p. 1257),  
 activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller (p. 1311),  
 activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller (p. 1336),  
 activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller (p. 1362),  
 activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller (p. 1401),  
 activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller (p. 1495),  
 activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller (p. 1596),  
 activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller (p. 1689),  
 activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller (p. 1791),  
 activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller (p. 1943),  
 activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller (p. 2204),  
 activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller (p. 2241),  
 activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller  
 (p. 2267), activemq::wireformat::openwire::marshal::v3::MessageMarshaller (p. 2318),  
 activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller (p. 2357),  
 activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller (p. 2589),  
 activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller (p. 2642),  
 activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller (p. 2721),  
 activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller  
 (p. 2746), activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller  
 (p. 2762), activemq::wireformat::openwire::marshal::v3::ResponseMarshaller (p. 2799),  
 activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller (p. 2899),  
 activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller (p. 2947), and  
 activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller (p. 3251).

**6.110.3.5** virtual void ac-  
 tivemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller::tightUnmarshal  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller`  
 (p. 180), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller`  
 (p. 216), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller`  
 (p. 325), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller`  
 (p. 348), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller`  
 (p. 389), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller`  
 (p. 482), `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller`



(p. 581), `activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller` (p. 786), `activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller` (p. 1143), `activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller` (p. 1167), `activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller` (p. 1220), `activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller` (p. 1258), `activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller` (p. 1312), `activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller` (p. 1337), `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1362), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1401), `activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller` (p. 1496), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1596), `activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller` (p. 1690), `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1791), `activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller` (p. 1944), `activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller` (p. 2205), `activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller` (p. 2242), `activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller` (p. 2268), `activemq::wireformat::openwire::marshal::v3::MessageMarshaller` (p. 2318), `activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller` (p. 2358), `activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller` (p. 2590), `activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller` (p. 2643), `activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller` (p. 2722), `activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller` (p. 2747), `activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller` (p. 2763), `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2800), `activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller` (p. 2900), `activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller` (p. 2948), and `activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller` (p. 3252).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h`

## 6.111 activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 664).

#include <src/main/activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller:

### Public Member Functions

- **BaseCommandMarshaller** ()
- virtual **~BaseCommandMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.111.1 Detailed Description

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 664). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.111.2 Constructor & Destructor Documentation

6.111.2.1 `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::BaseCommandMarshaller()` [inline]

6.111.2.2 `virtual activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::~~BaseCommandMarshaller()` [inline, virtual]

## 6.111.3 Member Function Documentation

6.111.3.1 `virtual void activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 182), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 218), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 327), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 350), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 391), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 484), `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 583), `activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller` (p. 788), `activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller` (p. 1145), `activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller` (p. 1169), `activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller` (p. 1226), `activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller` (p. 1264), `activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller` (p. 1314), `activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller` (p. 1343), `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1368), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1403), `activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller` (p. 1502), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1590), `activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller` (p. 1684), `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1785), `activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller` (p. 1950), `activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller` (p. 2211), `activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller` (p. 2244), `activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller`

(p. 2270), `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2326), `activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller` (p. 2360), `activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller` (p. 2600), `activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller` (p. 2653), `activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller` (p. 2708), `activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller` (p. 2741), `activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller` (p. 2773), `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807), `activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller` (p. 2886), `activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller` (p. 2938), and `activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller` (p. 3254).

**6.111.3.2 virtual void `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::looseUnmarshal`**  
**(`OpenWireFormat * wireFormat`, `commands::DataStructure`  
`* dataStructure`, `decaf::io::DataInputStream * dataIn`) throw (`decaf::io::IOException`)** [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - `BinaryReader` that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 183), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 219), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 328), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 351), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 392), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 485), `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 584), `activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller` (p. 789), `activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller` (p. 1146), `activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller` (p. 1170), `activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller` (p. 1227), `activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller` (p. 1265), `activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller` (p. 1315), `activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller` (p. 1344), `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1369), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1404), `activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller` (p. 1503), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1591), `activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller` (p. 1685), `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1786), `activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller` (p. 1951),

activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller (p. 2212), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller (p. 2245), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller (p. 2271), activemq::wireformat::openwire::marshal::v1::MessageMarshaller (p. 2326), activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2361), activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2601), activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2654), activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2709), activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller (p. 2742), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller (p. 2774), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2808), activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller (p. 2887), activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller (p. 2939), and activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller (p. 3255).

**6.111.3.3** virtual int activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller** (p. 183), **activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller** (p. 219), **activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller** (p. 328), **activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller** (p. 351), **activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller** (p. 392), **activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller** (p. 485), **activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller** (p. 584), **activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller** (p. 789), **activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller** (p. 1146), **activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller** (p. 1170), **activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller** (p. 1227), **activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller** (p. 1265), **activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller** (p. 1315), **activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller** (p. 1344), **activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller** (p. 1369),

**activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller** (p. 1404),  
**activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller** (p. 1503), **activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller** (p. 1591),  
**activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller** (p. 1685),  
**activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller** (p. 1786),  
**activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller** (p. 1951),  
**activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller** (p. 2212), **activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller** (p. 2245), **activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller** (p. 2271), **activemq::wireformat::openwire::marshal::v1::MessageMarshaller** (p. 2327),  
**activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller** (p. 2361),  
**activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller** (p. 2601),  
**activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller** (p. 2654),  
**activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller** (p. 2709), **activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller** (p. 2742), **activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller** (p. 2774), **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2808),  
**activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller** (p. 2887), **activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller** (p. 2939), and **activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller** (p. 3255).

**6.111.3.4 virtual void activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::tightMarshal2**  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller** (p. 183), **activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller** (p. 219), **activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller** (p. 328), **activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller** (p. 351), **activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller** (p. 392), **activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller** (p. 485), **activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller** (p. 584), **activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller** (p. 789), **activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller** (p. 1146), **activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller** (p. 1170), **activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller** (p. 1227),

activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1265),  
 activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1315),  
 activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1344),  
 activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1370),  
 activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1405),  
 activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1503),  
 activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1592),  
 activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1685),  
 activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1787),  
 activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller (p. 1951),  
 activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller (p. 2212),  
 activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller (p. 2245),  
 activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2271),  
 activemq::wireformat::openwire::marshal::v1::MessageMarshaller (p. 2328),  
 activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2361),  
 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2601),  
 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2654),  
 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2709),  
 activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller  
 (p. 2742),  
 activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2774),  
 activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2809),  
 activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller (p. 2887),  
 activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller (p. 2939), and  
 activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller (p. 3255).

**6.111.3.5 virtual void** `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller::tightUnmarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller`  
 (p. 184), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller`  
 (p. 220), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller`  
 (p. 329), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller`  
 (p. 352), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller`  
 (p. 393), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller`  
 (p. 486), `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller`

(p. 585), `activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller` (p. 790), `activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller` (p. 1147), `activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller` (p. 1171), `activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller` (p. 1228), `activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller` (p. 1266), `activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller` (p. 1316), `activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller` (p. 1345), `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1370), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1405), `activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller` (p. 1504), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1592), `activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller` (p. 1686), `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1787), `activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller` (p. 1952), `activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller` (p. 2213), `activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller` (p. 2246), `activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller` (p. 2272), `activemq::wireformat::openwire::marshal::v1::MessageMarshaller` (p. 2328), `activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller` (p. 2362), `activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller` (p. 2602), `activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller` (p. 2655), `activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller` (p. 2710), `activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller` (p. 2743), `activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller` (p. 2775), `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2810), `activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller` (p. 2888), `activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller` (p. 2940), and `activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller` (p. 3256).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h`



## 6.112 activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 671).

#include <src/main/activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller:

### Public Member Functions

- **BaseCommandMarshaller** ()
- virtual **~BaseCommandMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.112.1 Detailed Description

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 671). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.112.2 Constructor & Destructor Documentation

6.112.2.1 `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::BaseCommandMarshaller()` [inline]

6.112.2.2 `virtual activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::~~BaseCommandMarshaller()` [inline, virtual]

## 6.112.3 Member Function Documentation

6.112.3.1 `virtual void activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 186), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 222), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 331), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 354), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 395), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 488), `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 587), `activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller` (p. 792), `activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller` (p. 1149), `activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller` (p. 1173), `activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller` (p. 1222), `activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller` (p. 1260), `activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller` (p. 1318), `activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller` (p. 1339), `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1364), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1411), `activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller` (p. 1498), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1598), `activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller` (p. 1692), `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1793), `activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller` (p. 1946), `activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller` (p. 2207), `activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller` (p. 2236), `activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller`

(p. 2262), [activemq::wireformat::openwire::marshal::v4::MessageMarshaller](#) (p. 2311), [activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller](#) (p. 2368), [activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller](#) (p. 2592), [activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller](#) (p. 2649), [activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller](#) (p. 2724), [activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller](#) (p. 2749), [activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller](#) (p. 2769), [activemq::wireformat::openwire::marshal::v4::ResponseMarshaller](#) (p. 2812), [activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller](#) (p. 2890), [activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller](#) (p. 2942), and [activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller](#) (p. 3258).

**6.112.3.2 virtual void activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]**

Un-marshall an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataIn* - BinaryReader that provides that data source

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Implements [activemq::wireformat::openwire::marshal::DataStreamMarshaller](#) (p. 1436).

Reimplemented in [activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller](#) (p. 187), [activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller](#) (p. 223), [activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller](#) (p. 332), [activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller](#) (p. 355), [activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller](#) (p. 396), [activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller](#) (p. 489), [activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller](#) (p. 588), [activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller](#) (p. 793), [activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller](#) (p. 1150), [activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller](#) (p. 1174), [activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller](#) (p. 1223), [activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller](#) (p. 1261), [activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller](#) (p. 1319), [activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller](#) (p. 1340), [activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller](#) (p. 1365), [activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller](#) (p. 1412), [activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller](#) (p. 1499), [activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller](#) (p. 1599), [activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller](#) (p. 1693), [activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller](#) (p. 1794), [activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller](#) (p. 1947),

`activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller` (p. 2208), `activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller` (p. 2237), `activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller` (p. 2263), `activemq::wireformat::openwire::marshal::v4::MessageMarshaller` (p. 2311), `activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller` (p. 2369), `activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller` (p. 2593), `activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller` (p. 2650), `activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller` (p. 2725), `activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller` (p. 2750), `activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller` (p. 2770), `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813), `activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller` (p. 2891), `activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller` (p. 2943), and `activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller` (p. 3259).

**6.112.3.3** `virtual int activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 187), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 223), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 332), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 355), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 396), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 489), `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 588), `activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller` (p. 793), `activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller` (p. 1150), `activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller` (p. 1174), `activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller` (p. 1223), `activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller` (p. 1261), `activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller` (p. 1319), `activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller` (p. 1340), `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1365),

activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller (p. 1412),  
 activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller (p. 1499),  
 activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller (p. 1599),  
 activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller (p. 1693),  
 activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller (p. 1794),  
 activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller (p. 1947),  
 activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller (p. 2208),  
 activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller (p. 2237),  
 activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller  
 (p. 2263),  
 activemq::wireformat::openwire::marshal::v4::MessageMarshaller (p. 2312),  
 activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller (p. 2369),  
 activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller (p. 2593),  
 activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller (p. 2650),  
 activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller (p. 2725),  
 activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller  
 (p. 2750),  
 activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller  
 (p. 2770),  
 activemq::wireformat::openwire::marshal::v4::ResponseMarshaller (p. 2813),  
 activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller (p. 2891),  
 activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller (p. 2943),  
 and  
 activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller (p. 3259).

**6.112.3.4 virtual void** `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::tightMarshal2`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller`  
 (p. 187), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`  
 (p. 223), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller`  
 (p. 332), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller`  
 (p. 355), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller`  
 (p. 396), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller`  
 (p. 489), `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller`  
 (p. 588), `activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller` (p. 793),  
`activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller` (p. 1150),  
`activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller` (p. 1174),  
`activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller` (p. 1223),

activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller (p. 1261),  
 activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller (p. 1319),  
 activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller (p. 1340),  
 activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller (p. 1366),  
 activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller (p. 1413),  
 activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller (p. 1499),  
 activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller (p. 1600),  
 activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller (p. 1693),  
 activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller (p. 1795),  
 activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller (p. 1947),  
 activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller (p. 2208),  
 activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller (p. 2237),  
 activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller  
 (p. 2263), activemq::wireformat::openwire::marshal::v4::MessageMarshaller (p. 2313),  
 activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller (p. 2369),  
 activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller (p. 2593),  
 activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller (p. 2650),  
 activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller (p. 2725),  
 activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller  
 (p. 2750), activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller  
 (p. 2770), activemq::wireformat::openwire::marshal::v4::ResponseMarshaller (p. 2814),  
 activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller (p. 2891),  
 activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller (p. 2943), and  
 activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller (p. 3259).

**6.112.3.5** virtual void ac-  
 tivemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller::tightUnmarshal  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller`  
 (p. 188), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`  
 (p. 224), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller`  
 (p. 333), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller`  
 (p. 356), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller`  
 (p. 397), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller`  
 (p. 490), `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller`

(p. 589), [activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller](#) (p. 794), [activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller](#) (p. 1151), [activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller](#) (p. 1175), [activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller](#) (p. 1224), [activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller](#) (p. 1262), [activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller](#) (p. 1320), [activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller](#) (p. 1341), [activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller](#) (p. 1366), [activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller](#) (p. 1413), [activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller](#) (p. 1500), [activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller](#) (p. 1600), [activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller](#) (p. 1694), [activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller](#) (p. 1795), [activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller](#) (p. 1948), [activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller](#) (p. 2209), [activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller](#) (p. 2238), [activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller](#) (p. 2264), [activemq::wireformat::openwire::marshal::v4::MessageMarshaller](#) (p. 2313), [activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller](#) (p. 2370), [activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller](#) (p. 2594), [activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller](#) (p. 2651), [activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller](#) (p. 2726), [activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller](#) (p. 2751), [activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller](#) (p. 2771), [activemq::wireformat::openwire::marshal::v4::ResponseMarshaller](#) (p. 2815), [activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller](#) (p. 2892), [activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller](#) (p. 2944), and [activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller](#) (p. 3260).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h`

## 6.113 activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 678).

#include <src/main/activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller:

### Public Member Functions

- **BaseCommandMarshaller** ()
- virtual **~BaseCommandMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.113.1 Detailed Description

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 678). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.113.2 Constructor & Destructor Documentation

**6.113.2.1** `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::BaseCommandMarshaller()` `[inline]`

**6.113.2.2** `virtual activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::~~BaseCommandMarshaller()` `[inline, virtual]`

## 6.113.3 Member Function Documentation

**6.113.3.1** `virtual void activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 190), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 226), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 335), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 358), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 399), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 492), `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 591), `activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller` (p. 796), `activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller` (p. 1153), `activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1177), `activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1230), `activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1268), `activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller` (p. 1322), `activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller` (p. 1347), `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407), `activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller` (p. 1506), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1602), `activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller` (p. 1696), `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797), `activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1938), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller` (p. 2199), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller` (p. 2248), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller`

(p. 2274), `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321), `activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2364), `activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2596), `activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2645), `activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller` (p. 2712), `activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller` (p. 2733), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller` (p. 2765), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802), `activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller` (p. 2894), `activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2954), and `activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3246).

**6.113.3.2 virtual void `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::looseUnmarshal`**  
**(`OpenWireFormat * wireFormat`, `commands::DataStructure`  
`* dataStructure`, `decaf::io::DataInputStream * dataIn`) throw (`decaf::io::IOException`)** [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 191), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 227), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 336), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 359), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 400), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 493), `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 592), `activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller` (p. 797), `activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller` (p. 1154), `activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1178), `activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1231), `activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1269), `activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller` (p. 1323), `activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller` (p. 1348), `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1373), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1408), `activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller` (p. 1507), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1603), `activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller` (p. 1697), `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1798), `activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1939),

activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller (p. 2200), activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller (p. 2249), activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller (p. 2275), activemq::wireformat::openwire::marshal::v5::MessageMarshaller (p. 2321), activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller (p. 2365), activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller (p. 2597), activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller (p. 2646), activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller (p. 2713), activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller (p. 2734), activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller (p. 2766), activemq::wireformat::openwire::marshal::v5::ResponseMarshaller (p. 2803), activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller (p. 2895), activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller (p. 2955), and activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller (p. 3247).

**6.113.3.3** virtual int activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller** (p. 191), **activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller** (p. 227), **activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller** (p. 336), **activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller** (p. 359), **activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller** (p. 400), **activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller** (p. 493), **activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller** (p. 592), **activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller** (p. 797), **activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller** (p. 1154), **activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller** (p. 1178), **activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller** (p. 1231), **activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller** (p. 1269), **activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller** (p. 1323), **activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller** (p. 1348), **activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller** (p. 1373),

**activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller** (p. 1408),  
**activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller** (p. 1507), **activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller** (p. 1603),  
**activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller** (p. 1697),  
**activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller** (p. 1798),  
**activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller** (p. 1939),  
**activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller** (p. 2200), **activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller** (p. 2249), **activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller** (p. 2275),  
**activemq::wireformat::openwire::marshal::v5::MessageMarshaller** (p. 2322),  
**activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller** (p. 2365),  
**activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller** (p. 2597),  
**activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller** (p. 2646),  
**activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller** (p. 2713), **activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller** (p. 2734),  
**activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller** (p. 2766), **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2803),  
**activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller** (p. 2895), **activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller** (p. 2955), and  
**activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller** (p. 3247).

**6.113.3.4 virtual void activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::tightMarshal2**  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller** (p. 191), **activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller** (p. 227), **activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller** (p. 336), **activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller** (p. 359), **activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller** (p. 400), **activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller** (p. 493), **activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller** (p. 592), **activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller** (p. 797), **activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller** (p. 1154), **activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller** (p. 1178), **activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller** (p. 1231),

activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller (p. 1269),  
 activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller (p. 1323),  
 activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller (p. 1348),  
 activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller (p. 1374),  
 activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller (p. 1409),  
 activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller (p. 1507),  
 activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller (p. 1604),  
 activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller (p. 1697),  
 activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller (p. 1799),  
 activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller (p. 1939),  
 activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller (p. 2200),  
 activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller (p. 2249),  
 activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller  
 (p. 2275), activemq::wireformat::openwire::marshal::v5::MessageMarshaller (p. 2323),  
 activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller (p. 2365),  
 activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller (p. 2597),  
 activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller (p. 2646),  
 activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller (p. 2713),  
 activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller  
 (p. 2734), activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller  
 (p. 2766), activemq::wireformat::openwire::marshal::v5::ResponseMarshaller (p. 2804),  
 activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller (p. 2895),  
 activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller (p. 2955), and  
 activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller (p. 3247).

**6.113.3.5 virtual void** `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller::tightUnmarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller`  
 (p. 192), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller`  
 (p. 228), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller`  
 (p. 337), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller`  
 (p. 360), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller`  
 (p. 401), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller`  
 (p. 494), `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller`

(p. 593), `activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller` (p. 798), `activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller` (p. 1155), `activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1179), `activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1232), `activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1270), `activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller` (p. 1324), `activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller` (p. 1349), `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1374), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1409), `activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller` (p. 1508), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1604), `activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller` (p. 1698), `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1799), `activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1940), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller` (p. 2201), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller` (p. 2250), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller` (p. 2276), `activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323), `activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2366), `activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2598), `activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2647), `activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller` (p. 2714), `activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller` (p. 2735), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller` (p. 2767), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2805), `activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller` (p. 2896), `activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2956), and `activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3248).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h`

## 6.114 activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 685).

#include <src/main/activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller:

### Public Member Functions

- **BaseCommandMarshaller** ()
- virtual **~BaseCommandMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.114.1 Detailed Description

Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 685). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.114.2 Constructor & Destructor Documentation

6.114.2.1 `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::BaseCommandMarshaller()` [inline]

6.114.2.2 `virtual activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::~~BaseCommandMarshaller()` [inline, virtual]

## 6.114.3 Member Function Documentation

6.114.3.1 `virtual void activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::marshal(const OpenWireFormat * wireFormat, const commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 194), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 230), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 339), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 362), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 403), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 496), `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 595), `activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller` (p. 800), `activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller` (p. 1157), `activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller` (p. 1181), `activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller` (p. 1234), `activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller` (p. 1272), `activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller` (p. 1326), `activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller` (p. 1351), `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1376), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1415), `activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller` (p. 1490), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1586), `activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller` (p. 1680), `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1781), `activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller` (p. 1934), `activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller` (p. 2195), `activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller` (p. 2232), `activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller`



(p. 2258), [activemq::wireformat::openwire::marshal::v2::MessageMarshaller](#) (p. 2306), [activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller](#) (p. 2352), [activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller](#) (p. 2584), [activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller](#) (p. 2637), [activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller](#) (p. 2716), [activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller](#) (p. 2737), [activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller](#) (p. 2757), [activemq::wireformat::openwire::marshal::v2::ResponseMarshaller](#) (p. 2792), [activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller](#) (p. 2882), [activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller](#) (p. 2950), and [activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller](#) (p. 3262).

**6.114.3.2 virtual void activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

- wireFormat* - describes the wire format of the broker
- dataStructure* - Object to be marshaled
- dataIn* - BinaryReader that provides that data source

#### Exceptions:

- IOException* if an error occurs during the unmarshal.

Implements [activemq::wireformat::openwire::marshal::DataStreamMarshaller](#) (p. 1436).

Reimplemented in [activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller](#) (p. 195), [activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller](#) (p. 231), [activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller](#) (p. 340), [activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller](#) (p. 363), [activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller](#) (p. 404), [activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller](#) (p. 497), [activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller](#) (p. 596), [activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller](#) (p. 801), [activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller](#) (p. 1158), [activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller](#) (p. 1182), [activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller](#) (p. 1235), [activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller](#) (p. 1273), [activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller](#) (p. 1327), [activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller](#) (p. 1352), [activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller](#) (p. 1377), [activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller](#) (p. 1416), [activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller](#) (p. 1491), [activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller](#) (p. 1587), [activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller](#) (p. 1681), [activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller](#) (p. 1782), [activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller](#) (p. 1935),

**activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller** (p. 2196), **activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller** (p. 2233), **activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller** (p. 2259), **activemq::wireformat::openwire::marshal::v2::MessageMarshaller** (p. 2306), **activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller** (p. 2353), **activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller** (p. 2585), **activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller** (p. 2638), **activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller** (p. 2717), **activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller** (p. 2738), **activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller** (p. 2758), **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2793), **activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller** (p. 2883), **activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller** (p. 2951), and **activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller** (p. 3263).

**6.114.3.3 virtual int activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::tightMarshal1**  
**(OpenWireFormat \* wireFormat, commands::DataStructure \* dataStructure, utils::BooleanStream \* bs) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller** (p. 195), **activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller** (p. 231), **activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller** (p. 340), **activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller** (p. 363), **activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller** (p. 404), **activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller** (p. 497), **activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller** (p. 596), **activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller** (p. 801), **activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller** (p. 1158), **activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller** (p. 1182), **activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller** (p. 1235), **activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller** (p. 1273), **activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller** (p. 1327), **activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller** (p. 1352), **activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller** (p. 1377),

activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller (p. 1416),  
 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller (p. 1491),  
 activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1587),  
 activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller (p. 1681),  
 activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller (p. 1782),  
 activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller (p. 1935),  
 activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller (p. 2196),  
 activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller (p. 2233),  
 activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller  
 (p. 2259),  
 activemq::wireformat::openwire::marshal::v2::MessageMarshaller (p. 2307),  
 activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller (p. 2353),  
 activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller (p. 2585),  
 activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller (p. 2638),  
 activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller (p. 2717),  
 activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller  
 (p. 2738),  
 activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller  
 (p. 2758),  
 activemq::wireformat::openwire::marshal::v2::ResponseMarshaller (p. 2793),  
 activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller (p. 2883),  
 activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller (p. 2951), and  
 activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller (p. 3263).

**6.114.3.4 virtual void** `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::tightMarshal2`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller`  
 (p. 195), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller`  
 (p. 231), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller`  
 (p. 340), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller`  
 (p. 363), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller`  
 (p. 404), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller`  
 (p. 497), `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller`  
 (p. 596), `activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller` (p. 801),  
`activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller` (p. 1158),  
`activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller` (p. 1182),  
`activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller` (p. 1235),

activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller (p. 1273),  
 activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller (p. 1327),  
 activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller (p. 1352),  
 activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller (p. 1378),  
 activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller (p. 1417),  
 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller (p. 1491),  
 activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1588),  
 activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller (p. 1681),  
 activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller (p. 1783),  
 activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller (p. 1935),  
 activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller (p. 2196),  
 activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller (p. 2233),  
 activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller  
 (p. 2259), activemq::wireformat::openwire::marshal::v2::MessageMarshaller (p. 2308),  
 activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller (p. 2353),  
 activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller (p. 2585),  
 activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller (p. 2638),  
 activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller (p. 2717),  
 activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller  
 (p. 2738), activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller  
 (p. 2758), activemq::wireformat::openwire::marshal::v2::ResponseMarshaller (p. 2794),  
 activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller (p. 2883),  
 activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller (p. 2951), and  
 activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller (p. 3263).

**6.114.3.5** virtual void ac-  
 tivemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller::tightUnmarshal  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure  
 \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*,  
 utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller`  
 (p. 196), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller`  
 (p. 232), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller`  
 (p. 341), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller`  
 (p. 364), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller`  
 (p. 405), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller`  
 (p. 498), `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller`

(p. 597), `activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller` (p. 802), `activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller` (p. 1159), `activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller` (p. 1183), `activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller` (p. 1236), `activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller` (p. 1274), `activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller` (p. 1328), `activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller` (p. 1353), `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1378), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1417), `activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller` (p. 1492), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1588), `activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller` (p. 1682), `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1783), `activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller` (p. 1936), `activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller` (p. 2197), `activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller` (p. 2234), `activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller` (p. 2260), `activemq::wireformat::openwire::marshal::v2::MessageMarshaller` (p. 2308), `activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller` (p. 2354), `activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller` (p. 2586), `activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller` (p. 2639), `activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller` (p. 2718), `activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller` (p. 2739), `activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller` (p. 2759), `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2795), `activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller` (p. 2884), `activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller` (p. 2952), and `activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller` (p. 3264).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h`

## 6.115 activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller Class Reference

Base class for all Marshallers that marshal DataStructures to and from the wire using the Open-Wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
```

Inherits `activemq::wireformat::openwire::marshal::DataStreamMarshaller`.

Inherited by `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller`,  
`activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller`,  
`activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller`,  
`activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller`,  
`activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller`,  
`activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::SessionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller`,  
`activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller`,  
`activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller`,  
`activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller`,  
`activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller`,  
`activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::SessionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller`,  
`activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller`,  
`activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller`, `ac-`  
`tivemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller`, `ac-`

tivemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller,	
activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller,	
activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller,	
activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::SessionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller,	
activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller,	
activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller,	
activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller,	
activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller,	
activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::SessionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller,	
activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller,	
activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller,	
activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller,	
activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller,	
activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::SessionIdMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller,	ac-
tivemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller,	and ac-
tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller.	

## Public Member Functions

- virtual `~BaseDataStreamMarshaller()`
- virtual `int tightMarshal(OpenWireFormat *format AMQCPP_UNUSED, commands::DataStructure *command AMQCPP_UNUSED, utils::BooleanStream *bs AMQCPP_UNUSED) throw (decaf::io::IOException)`

*Tight Marshal to the given stream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*format **AMQCPP\_UNUSED**, **commands::DataStructure** \*command **AMQCPP\_UNUSED**, **decaf::io::DataOutputStream** \*ds **AMQCPP\_UNUSED**, **utils::BooleanStream** \*bs **AMQCPP\_UNUSED**) throw ( **decaf::io::IOException** )

*Tight Marshal to the given stream.*

- virtual void **tightUnmarshal** (**OpenWireFormat** \*format **AMQCPP\_UNUSED**, **commands::DataStructure** \*command **AMQCPP\_UNUSED**, **decaf::io::DataInputStream** \*dis **AMQCPP\_UNUSED**, **utils::BooleanStream** \*bs **AMQCPP\_UNUSED**) throw ( **decaf::io::IOException** )

*Tight Un-Marshal to the given stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*format **AMQCPP\_UNUSED**, **commands::DataStructure** \*command **AMQCPP\_UNUSED**, **decaf::io::DataOutputStream** \*ds **AMQCPP\_UNUSED**) throw ( **decaf::io::IOException** )

*Tight Marshal to the given stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*format **AMQCPP\_UNUSED**, **commands::DataStructure** \*command **AMQCPP\_UNUSED**, **decaf::io::DataInputStream** \*dis **AMQCPP\_UNUSED**) throw ( **decaf::io::IOException** )

*Loose Un-Marshal to the given stream.*

## Static Public Member Functions

- static std::string **toString** (const **commands::MessageId** \*id)  
*Converts the object to a String.*
- static std::string **toString** (const **commands::ProducerId** \*id)  
*Converts the object to a String.*
- static std::string **toString** (const **commands::TransactionId** \*txnId)  
*Converts the given transaction ID into a String.*
- static std::string **toHexFromBytes** (const std::vector< unsigned char > &data)  
*given an array of bytes, convert that array to a Hexidecimal coded string that represents that data.*

## Protected Member Functions

- virtual **commands::DataStructure** \* **tightUnmarshalCachedObject** (**OpenWireFormat** \*wireFormat, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tight Unmarshal the cached object.*



- virtual int **tightMarshalCachedObject1** (OpenWireFormat \*wireFormat, commands::DataStructure \*data, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Tightly marshals the passed DataStructure based object to the passed BooleanStream returning the size of the data marshaled.*
- virtual void **tightMarshalCachedObject2** (OpenWireFormat \*wireFormat, commands::DataStructure \*data, decaf::io::DataOutputStream \*dataOut, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Tightly marshals the passed DataStructure based object to the passed streams returning nothing.*
- virtual void **looseMarshalCachedObject** (OpenWireFormat \*wireFormat, commands::DataStructure \*data, decaf::io::DataOutputStream \*dataOut) throw ( decaf::io::IOException )  
*Loosely marshals the passed DataStructure based object to the passed stream returning nothing.*
- virtual commands::DataStructure \* **looseUnmarshalCachedObject** (OpenWireFormat \*wireFormat, decaf::io::DataInputStream \*dataIn) throw ( decaf::io::IOException )  
*Loose Unmarshal the cached object.*
- virtual int **tightMarshalNestedObject1** (OpenWireFormat \*wireFormat, commands::DataStructure \*object, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Tightly marshals the passed DataStructure based object to the passed BooleanStream returning the size of the data marshaled.*
- virtual void **tightMarshalNestedObject2** (OpenWireFormat \*wireFormat, commands::DataStructure \*object, decaf::io::DataOutputStream \*dataOut, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Tightly marshals the passed DataStructure based object to the passed streams returning nothing.*
- virtual commands::DataStructure \* **tightUnmarshalNestedObject** (OpenWireFormat \*wireFormat, decaf::io::DataInputStream \*dataIn, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Tight Unmarshal the nested object.*
- virtual commands::DataStructure \* **looseUnmarshalNestedObject** (OpenWireFormat \*wireFormat, decaf::io::DataInputStream \*dataIn) throw ( decaf::io::IOException )  
*Loose Unmarshal the nested object.*
- virtual void **looseMarshalNestedObject** (OpenWireFormat \*wireFormat, commands::DataStructure \*object, decaf::io::DataOutputStream \*dataOut) throw ( decaf::io::IOException )  
*Loose marshall the nested object.*
- virtual std::string **tightUnmarshalString** (decaf::io::DataInputStream \*dataIn, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Performs Tight Unmarshaling of String Objects.*

- virtual int **tightMarshalString1** (const std::string &value, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tight Marshals the String to a Booleans Stream Object, returns the marshaled size.*

- virtual void **tightMarshalString2** (const std::string &value, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tight Marshals the passed string to the streams passed.*

- virtual void **looseMarshalString** (const std::string value, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Loose Marshal the String to the DataOuputStream passed.*

- virtual std::string **looseUnmarshalString** (**decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Loose Un-Marshall the String to the DataOuputStream passed.*

- virtual int **tightMarshalLong1** (**OpenWireFormat** \*wireFormat, long long value, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tightly marshal the long long to the BooleanStream passed.*

- virtual void **tightMarshalLong2** (**OpenWireFormat** \*wireFormat, long long value, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tightly marshal the long long to the Streams passed.*

- virtual long long **tightUnmarshalLong** (**OpenWireFormat** \*wireFormat, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tight marshal the long long type.*

- virtual void **looseMarshalLong** (**OpenWireFormat** \*wireFormat, long long value, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Tightly marshal the long long to the BooleanStream passed.*

- virtual long long **looseUnmarshalLong** (**OpenWireFormat** \*wireFormat, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Loose marshal the long long type.*

- virtual std::vector< unsigned char > **tightUnmarshalByteArray** (**decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Tight Unmarshal an array of char.*

- virtual std::vector< unsigned char > **looseUnmarshalByteArray** (**decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Loose Unmarshal an array of char.*

- virtual std::vector< unsigned char > **tightUnmarshalConstByteArray** (**decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs, int size) throw ( **decaf::io::IOException** )

*Tight Unmarshal a fixed size array from that data input stream and return an stl vector of char as the resultant.*

- virtual `std::vector< unsigned char > looseUnmarshalConstByteArray (decaf::io::DataInputStream *dataIn, int size) throw ( decaf::io::IOException )`

*Tight Unmarshal a fixed size array from that data input stream and return an stl vector of char as the resultant.*

- virtual `commands::DataStructure * tightUnmarshalBrokerError (OpenWireFormat *wireFormat, decaf::io::DataInputStream *dataIn, utils::BooleanStream *bs) throw ( decaf::io::IOException )`

*Tight Unmarshal the Error object.*

- virtual `int tightMarshalBrokerError1 (OpenWireFormat *wireFormat, commands::DataStructure *data, utils::BooleanStream *bs) throw ( decaf::io::IOException )`

*Tight Marshal the Error object.*

- virtual `void tightMarshalBrokerError2 (OpenWireFormat *wireFormat, commands::DataStructure *data, decaf::io::DataOutputStream *dataOut, utils::BooleanStream *bs) throw ( decaf::io::IOException )`

*Tight Marshal the Error object.*

- virtual `commands::DataStructure * looseUnmarshalBrokerError (OpenWireFormat *wireFormat, decaf::io::DataInputStream *dataIn) throw ( decaf::io::IOException )`

*Loose Unmarshal the Error object.*

- virtual `void looseMarshalBrokerError (OpenWireFormat *wireFormat, commands::DataStructure *data, decaf::io::DataOutputStream *dataOut) throw ( decaf::io::IOException )`

*Tight Marshal the Error object.*

- `template<typename T > int tightMarshalObjectArray1 (OpenWireFormat *wireFormat, std::vector< T > objects, utils::BooleanStream *bs) throw ( decaf::io::IOException )`

*Tightly Marshal an array of DataStructure objects to the provided boolean stream, and return the size that the tight marshalling is going to take.*

- `template<typename T > void tightMarshalObjectArray2 (OpenWireFormat *wireFormat, std::vector< T > objects, decaf::io::DataOutputStream *dataOut, utils::BooleanStream *bs) throw ( decaf::io::IOException )`

*Tightly Marshal an array of DataStructure objects to the provided boolean stream and data output stream.*

- `template<typename T > void looseMarshalObjectArray (OpenWireFormat *wireFormat, std::vector< T > objects, decaf::io::DataOutputStream *dataOut) throw ( decaf::io::IOException )`

*Loosely Marshal an array of DataStructure objects to the provided boolean stream and data output stream.*

- virtual std::string readAsciiString (decaf::io::DataInputStream \*dataIn) throw ( decaf::io::IOException )

*Given an DataInputStream read a know ASCII formatted string from the input and return that string.*

### 6.115.1 Detailed Description

Base class for all Marshallers that marshal DataStructures to and from the wire using the Open-Wire protocol.

Since:

2.0

### 6.115.2 Constructor & Destructor Documentation

- 6.115.2.1 virtual  
activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::~BaseDataStreamMarshaller()  
[inline, virtual]

### 6.115.3 Member Function Documentation

- 6.115.3.1 virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshal (OpenWireFormat \*format *AMQCPP\_UNUSED*, commands::DataStructure \*command *AMQCPP\_UNUSED*, decaf::io::DataOutputStream \*ds *AMQCPP\_UNUSED*) throw ( decaf::io::IOException ) [inline, virtual]

Tight Marshal to the given stream.

Parameters:

*format* - The OpenwireFormat properties

*command* - the object to Marshal

*ds* - DataOutputStream to marshal to

Exceptions:

*IOException* if an error occurs.

- 6.115.3.2 virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalBrokerError (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *data*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException )  
[protected, virtual]

Tight Marshal the Error object.

Parameters:

*wireFormat* - The OpenwireFormat properties

*data* - Error to Marshal

*dataOut* - stream to write marshalled data to

Exceptions:

*IOException* if an error occurs.

**6.115.3.3** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalCachedObject(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *data*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException )  
[protected, virtual]

Loosely marshals the passed DataStructure based object to the passed stream returning nothing.

Parameters:

*wireFormat* - The OpenWireFormat properties

*data* - DataStructure Object Pointer to marshal

*dataOut* - stream to write marshaled data to

Exceptions:

*IOException* if an error occurs.

**6.115.3.4** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalLong(OpenWireFormat \* *wireFormat*, long long *value*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException )  
[protected, virtual]

Tightly marshal the long long to the BooleanStream passed.

Parameters:

*wireFormat* - The OpenWireFormat properties

*value* - long long to marshal

*dataOut* - DataOutputStream to marshal to.

Exceptions:

*IOException* if an error occurs.

**6.115.3.5** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalNestedObject(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *object*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException )  
[protected, virtual]

Loose marshal the nested object.

**Parameters:**

*wireFormat* - The OpenwireFormat properties  
*object* - DataStructure Object Pointer to marshal  
*dataOut* - stream to write marshaled data to

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.6** `template<typename T > void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalObjectA  
 (OpenWireFormat * wireFormat, std::vector< T > objects,  
 decaf::io::DataOutputStream * dataOut) throw ( decaf::io::IOException )  
 [inline, protected]`

Loosely Marshal an array of DataStructure objects to the provided boolean stream and data output stream.

**Parameters:**

*wireFormat* - The OpenwireFormat properties  
*objects* - array of DataStructure object pointers.  
*dataOut* - stream to write marshalled data to

**Returns:**

size of the marshalled data

**Exceptions:**

*IOException* if an error occurs.

References AMQ\_CATCH\_EXCEPTION\_CONVERT, AMQ\_CATCH\_RETHROW, and AMQ\_CATCHALL\_THROW.

**6.115.3.7** `virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalString  
 (const std::string value, decaf::io::DataOutputStream * dataOut) throw (  
 decaf::io::IOException ) [protected, virtual]`

Loose Marshal the String to the DataOutputStream passed.

**Parameters:**

*value* - string to marshal  
*dataOut* - stream to write marshaled form to

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.8** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshal (OpenWireFormat \*format *AMQCPP\_UNUSED*, commands::DataStructure \*command *AMQCPP\_UNUSED*, decaf::io::DataInputStream \*dis *AMQCPP\_UNUSED*) throw ( decaf::io::IOException ) [inline, virtual]

Loose Un-Marshal to the given stream.

**Parameters:**

*format* - The OpenWireFormat properties  
*command* - the object to Un-Marshal  
*dis* - the DataInputStream to Un-Marshal from

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.9** virtual commands::DataStructure\* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalBroken (OpenWireFormat \* *wireFormat*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [protected, virtual]

Loose Unmarshal the Error object.

**Parameters:**

*wireFormat* - The OpenWireFormat properties  
*dataIn* - stream to read marshalled form from

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.10** virtual std::vector<unsigned char> activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalBytes (decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [protected, virtual]

Loose Unmarshal an array of char.

**Parameters:**

*dataIn* - the DataInputStream to Un-Marshal from

**Returns:**

the unmarshalled vector of chars.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.11** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalCached(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [protected, virtual]

Loose Unmarshal the cached object.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*dataIn* - stream to read marshaled form from

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.12** `virtual std::vector<unsigned char> activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalConstrainedArray(decaf::io::DataInputStream * dataIn, int size) throw ( decaf::io::IOException )` [protected, virtual]

Tight Unmarshal a fixed size array from that data input stream and return an stl vector of char as the resultant.

**Parameters:**

*dataIn* - the DataInputStream to Un-Marshall from

*size* - size of the const array to unmarshal

**Returns:**

the unmarshaled vector of chars.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.13** `virtual long long activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalLong(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [protected, virtual]

Loose marshal the long long type.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*dataIn* - stream to read marshaled form from



**Returns:**

the unmarshaled long long

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.14** virtual commands::DataStructure\* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalNested(OpenWireFormat \* *wireFormat*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [protected, virtual]

Loose Unmarshal the nested object.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*dataIn* - stream to read marshaled form from

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.15** virtual std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseUnmarshalString(decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [protected, virtual]

Loose Un-Marshal the String to the DataOutputStream passed.

**Parameters:**

*dataIn* - stream to read marshaled form from

**Returns:**

the unmarshaled string

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.16** virtual std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::readAsciiString(decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [protected, virtual]

Given an DataInputStream read a know ASCII formatted string from the input and return that string.

**Parameters:**

*dataIn* - DataInputStream to read from

**Returns:**

string value read from stream

**6.115.3.17** virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshal1 (OpenWireFormat \*format *AMQCPP\_UNUSED*, commands::DataStructure \*command *AMQCPP\_UNUSED*, utils::BooleanStream \*bs *AMQCPP\_UNUSED*) throw (decaf::io::IOException) [inline, virtual]

Tight Marshal to the given stream.

**Parameters:**

*format* - The OpenWireFormat properties

*command* - the object to Marshal

*bs* - boolean stream to marshal to.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.18** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshal2 (OpenWireFormat \*format *AMQCPP\_UNUSED*, commands::DataStructure \*command *AMQCPP\_UNUSED*, decaf::io::DataOutputStream \*ds *AMQCPP\_UNUSED*, utils::BooleanStream \*bs *AMQCPP\_UNUSED*) throw (decaf::io::IOException) [inline, virtual]

Tight Marshal to the given stream.

**Parameters:**

*format* - The OpenWireFormat properties

*command* - the object to Marshal

*ds* - the DataOutputStream to Marshal to

*bs* - boolean stream to marshal to.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.19** `virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalBroker(OpenWireFormat * wireFormat, commands::DataStructure * data, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight Marshal the Error object.

**Parameters:**

*wireFormat* - The OpenwireFormat properties

*data* - Error to Marshal

*bs* - boolean stream to marshal to.

**Returns:**

size of the marshalled data

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.20** `virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalBroker(OpenWireFormat * wireFormat, commands::DataStructure * data, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight Marshal the Error object.

**Parameters:**

*wireFormat* - The OpenwireFormat properties

*data* - Error to Marshal

*dataOut* - stream to write marshalled data to

*bs* - boolean stream to marshal to.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.21** `virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalCached(OpenWireFormat * wireFormat, commands::DataStructure * data, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tightly marshals the passed DataStructure based object to the passed BooleanStream returning the size of the data marshaled.

**Parameters:**

*wireFormat* - The OpenwireFormat properties

*data* - DataStructure Object Pointer to marshal

*bs* - boolean stream to marshal to.

**Returns:**

size of data written.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.22** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalCached  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *data*,  
decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*)  
throw ( decaf::io::IOException ) [protected, virtual]

Tightly marshals the passed DataStructure based object to the passed streams returning nothing.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*data* - DataStructure Object Pointer to marshal

*bs* - boolean stream to marshal to.

*dataOut* - stream to write marshaled data to

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.23** virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalLong1  
(OpenWireFormat \* *wireFormat*, long long *value*, utils::BooleanStream  
\* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tightly marshal the long long to the BooleanStream passed.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*value* - long long to marshal

*bs* - boolean stream to marshal to.

**Returns:**

size of data written.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.24** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalLong2 (OpenWireFormat \* *wireFormat*, long long *value*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tightly marshal the long long to the Streams passed.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*value* - long long to marshal

*dataOut* - stream to write marshaled form to

*bs* - boolean stream to marshal to.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.25** virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalNested (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *object*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tightly marshals the passed DataStructure based object to the passed BooleanStream returning the size of the data marshaled.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*object* - DataStructure Object Pointer to marshal

*bs* - boolean stream to marshal to.

**Returns:**

size of data written.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.26** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalNested (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *object*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tightly marshals the passed DataStructure based object to the passed streams returning nothing.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*object* - DataStructure Object Pointer to marshal

*bs* - boolean stream to marshal to.

*dataOut* - stream to write marshaled data to

**Exceptions:**

*IOException* if an error occurs.

```
6.115.3.27  template<typename T > int ac-
            tivemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObject(
            (OpenWireFormat * wireFormat,  std::vector< T > objects,
            utils::BooleanStream * bs) throw ( decaf::io::IOException )  [inline,
            protected]
```

Tightly Marshal an array of DataStructure objects to the provided boolean stream, and return the size that the tight marshalling is going to take.

**Parameters:**

*wireFormat* - The OpenwireFormat properties

*objects* - array of DataStructure object pointers.

*bs* - boolean stream to marshal to.

**Returns:**

size of the marshalled data

**Exceptions:**

*IOException* if an error occurs.

References AMQ\_CATCH\_EXCEPTION\_CONVERT, AMQ\_CATCH\_RETHROW, and AMQ\_CATCHALL\_THROW.

```
6.115.3.28  template<typename T > void ac-
            tivemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObject(
            (OpenWireFormat * wireFormat,  std::vector< T > objects,
            decaf::io::DataOutputStream * dataOut,  utils::BooleanStream * bs)
            throw ( decaf::io::IOException )  [inline, protected]
```

Tightly Marshal an array of DataStructure objects to the provided boolean stream and data output stream.

**Parameters:**

*wireFormat* - The OpenwireFormat properties

*objects* - array of DataStructure object pointers.

*dataOut* - stream to write marshalled data to

*bs* - boolean stream to marshal to.

**Returns:**

size of the marshalled data

**Exceptions:**

*IOException* if an error occurs.

References AMQ\_CATCH\_EXCEPTION\_CONVERT, AMQ\_CATCH\_RETHROW, and AMQ\_CATCHALL\_THROW.

**6.115.3.29** virtual int activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalString1 (const std::string & *value*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tight Marshals the String to a Booleans Stream Object, returns the marshaled size.

**Parameters:**

*value* - string to marshal  
*bs* - BooleanStream to use.

**Returns:**

size of marshaled string.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.30** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalString2 (const std::string & *value*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [protected, virtual]

Tight Marshals the passed string to the streams passed.

**Parameters:**

*value* - string to marshal  
*dataOut* - the DataOutputStream to Marshal to  
*bs* - boolean stream to marshal to.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.31** virtual void activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshal (OpenWireFormat \**format* AMQCPP\_UNUSED, commands::DataStructure \**command* AMQCPP\_UNUSED, decaf::io::DataInputStream \**dis* AMQCPP\_UNUSED, utils::BooleanStream \**bs* AMQCPP\_UNUSED) throw ( decaf::io::IOException ) [inline, virtual]

Tight Un-Marshal to the given stream.

**Parameters:**

*format* - The OpenwireFormat properties  
*command* - the object to Un-Marshal  
*dis* - the DataInputStream to Un-Marshal from  
*bs* - boolean stream to Un-Marshal from.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.32** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalBroken(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight Unmarshal the Error object.

**Parameters:**

*wireFormat* - The OpenwireFormat properties  
*dataIn* - stream to read marshalled form from  
*bs* - boolean stream to marshal to.

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.33** `virtual std::vector<unsigned char> activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalByteArray(decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight Unmarshal an array of char.

**Parameters:**

*dataIn* - the DataInputStream to Un-Marshal from  
*bs* - boolean stream to unmarshal from.

**Returns:**

the unmarshaled vector of chars.

**Exceptions:**

*IOException* if an error occurs.



**6.115.3.34** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalCache(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight Unmarshal the cached object.

**Parameters:**

*wireFormat* - The OpenWireFormat properties

*dataIn* - stream to read marshaled form from

*bs* - boolean stream to marshal to.

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.35** `virtual std::vector<unsigned char> activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalConstArray(decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs, int size) throw ( decaf::io::IOException )` [protected, virtual]

Tight Unmarshal a fixed size array from that data input stream and return an stl vector of char as the resultant.

**Parameters:**

*dataIn* - the DataInputStream to Un-Marshall from

*bs* - boolean stream to unmarshal from.

*size* - size of the const array to unmarshal

**Returns:**

the unmarshaled vector of chars.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.36** `virtual long long activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalLong(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [protected, virtual]

Tight marshal the long long type.

**Parameters:**

*wireFormat* - The OpenwireFormat properties  
*dataIn* - stream to read marshaled form from  
*bs* - boolean stream to marshal to.

**Returns:**

the unmarshaled long long

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.37** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalNested(OpenWireFormat * wireFormat, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [protected, virtual]`

Tight Unmarshal the nested object.

**Parameters:**

*wireFormat* - The OpenwireFormat properties  
*dataIn* - stream to read marshaled form from  
*bs* - boolean stream to marshal to.

**Returns:**

pointer to a new DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.38** `virtual std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightUnmarshalString(decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [protected, virtual]`

Performs Tight Unmarshaling of String Objects.

**Parameters:**

*dataIn* - the DataInputStream to Un-Marshal from  
*bs* - boolean stream to unmarshal from.

**Returns:**

the unmarshaled string.

**Exceptions:**

*IOException* if an error occurs.

**6.115.3.39** static std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::toHexFromBytes (const std::vector< unsigned char > & *data*) [static]

given an array of bytes, convert that array to a Hexidecimal coded string that represents that data.

**Parameters:**

*data* - unsigned char data array pointer

**Returns:**

a string coded in hex that represents the data

**6.115.3.40** static std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::toString (const commands::TransactionId \* *txnId*) [static]

Converts the given transaction ID into a String.

**Parameters:**

*txnId* - TransactionId poitner

**Returns:**

string representation of the id

**6.115.3.41** static std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::toString (const commands::ProducerId \* *id*) [static]

Converts the object to a String.

**Parameters:**

*id* - ProducerId pointer

**Returns:**

string representing the id

**6.115.3.42** static std::string activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::toString (const commands::MessageId \* *id*) [static]

Converts the object to a String.

**Parameters:**

*id* - MessageId pointer

**Returns:**

string representing the id

Referenced by `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getCMSMessageID()`.

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h`

## 6.116 activemq::commands::BaseDataStructure Class Reference

#include <src/main/activemq/commands/BaseDataStructure.h> Inheritance diagram for activemq::commands::BaseDataStructure:

### Public Member Functions

- virtual `~BaseDataStructure ()`
- virtual bool `isMarshalAware ()` const  
*Determine if this object is aware of marshaling and should have its before and after marshaling methods called.*
- virtual void `beforeMarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Perform any processing needed before an marshal.*
- virtual void `afterMarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Perform any processing needed after an unmarshal.*
- virtual void `beforeUnmarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Perform any processing needed before an unmarshal.*
- virtual void `afterUnmarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Perform any processing needed after an unmarshal.*
- virtual void `setMarshaledForm (wireformat::WireFormat *wireFormat AMQCPP_UNUSED, const std::vector< char > &data AMQCPP_UNUSED)`  
*Called to set the data to this object that will contain the objects marshaled form.*
- virtual std::vector< unsigned char > `getMarshaledForm (wireformat::WireFormat *wireFormat AMQCPP_UNUSED)`  
*Called to get the data to this object that will contain the objects marshaled form.*
- virtual void `copyDataStructure (const DataStructure *src AMQCPP_UNUSED)`  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string `toString ()` const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool `equals (const DataStructure *value AMQCPP_UNUSED)` const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*

### 6.116.1 Constructor & Destructor Documentation

**6.116.1.1** `virtual activemq::commands::BaseDataStructure::~~BaseDataStructure ()`  
[inline, virtual]

### 6.116.2 Member Function Documentation

**6.116.2.1** `virtual void activemq::commands::BaseDataStructure::afterMarshal`  
(`wireformat::WireFormat *wireFormat AMQCPP_UNUSED`) throw (`decaf::io::IOException`) [inline, virtual]

Perform any processing needed after an unmarshal.

#### Parameters:

*wireformat* - the OpenWireFormat object in use.

**6.116.2.2** `virtual void activemq::commands::BaseDataStructure::afterUnmarshal`  
(`wireformat::WireFormat *wireFormat AMQCPP_UNUSED`) throw (`decaf::io::IOException`) [inline, virtual]

Perform any processing needed after an unmarshal.

#### Parameters:

*wireformat* - the OpenWireFormat object in use.

Reimplemented in `activemq::commands::Message` (p. 2149), and `activemq::commands::WireFormatInfo` (p. 3371).

**6.116.2.3** `virtual void activemq::commands::BaseDataStructure::beforeMarshal`  
(`wireformat::WireFormat *wireFormat AMQCPP_UNUSED`) throw (`decaf::io::IOException`) [inline, virtual]

Perform any processing needed before an marshal.

#### Parameters:

*wireformat* - the OpenWireFormat object in use.

Reimplemented in `activemq::commands::Message` (p. 2149), and `activemq::commands::WireFormatInfo` (p. 3372).

**6.116.2.4** `virtual void activemq::commands::BaseDataStructure::beforeUnmarshal`  
(`wireformat::WireFormat *wireFormat AMQCPP_UNUSED`) throw (`decaf::io::IOException`) [inline, virtual]

Perform any processing needed before an unmarshal.

#### Parameters:

*wireformat* - the OpenWireFormat object in use.

### 6.116.2.5 virtual void activemq::commands::BaseDataStructure::copyDataStructure (const DataStructure \*src *AMQCPP\_UNUSED*) [inline, virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

#### Returns:

src - Source Object

Reimplemented in `activemq::commands::BooleanExpression` (p. 738).

### 6.116.2.6 virtual bool activemq::commands::BaseDataStructure::equals (const DataStructure \*value *AMQCPP\_UNUSED*) const [inline, virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Referenced by `activemq::commands::BooleanExpression::equals()`, and `activemq::commands::BaseCommand::equals()`.

### 6.116.2.7 virtual std::vector<unsigned char> activemq::commands::BaseDataStructure::getMarshaledForm (wireformat::WireFormat \*wireFormat *AMQCPP\_UNUSED*) [inline, virtual]

Called to get the data to this object that will contain the objects marshaled form.

#### Parameters:

*wireFormat* - the wireformat object to control unmarshaling

#### Returns:

buffer that holds the objects data.

### 6.116.2.8 virtual bool activemq::commands::BaseDataStructure::isMarshalAware () const [inline, virtual]

Determine if this object is aware of marshaling and should have its before and after marshaling methods called. Defaults to false.

#### Returns:

true if aware of marshaling

Implements `activemq::wireformat::MarshalAware` (p. 2120).

Reimplemented in `activemq::commands::ActiveMQMapMessage` (p. 316), `activemq::commands::Message` (p. 2155), and `activemq::commands::WireFormatInfo` (p. 3374).

**6.116.2.9** `virtual void activemq::commands::BaseDataStructure::setMarshaledForm (wireformat::WireFormat *wireFormat AMQCPP_UNUSED, const std::vector< char > &data AMQCPP_UNUSED)` [inline, virtual]

Called to set the data to this object that will contain the objects marshaled form.

**Parameters:**

*wireFormat* - the wireformat object to control unmarshaling

*data* - vector of object binary data

**6.116.2.10** `virtual std::string activemq::commands::BaseDataStructure::toString () const` [inline, virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Implements **activemq::commands::DataStructure** (p.1465).

Reimplemented in **activemq::commands::ActiveMQBlobMessage** (p.176), **activemq::commands::ActiveMQBytesMessage** (p.208), **activemq::commands::ActiveMQDestination** (p.282), **activemq::commands::ActiveMQMapMessage** (p.320), **activemq::commands::ActiveMQMessage** (p.344), **activemq::commands::ActiveMQObjectMessage** (p.385), **activemq::commands::ActiveMQQueue** (p.422), **activemq::commands::ActiveMQStreamMessage** (p.474), **activemq::commands::ActiveMQTempDestination** (p.501), **activemq::commands::ActiveMQTempQueue** (p.526), **activemq::commands::ActiveMQTempTopic** (p.551), **activemq::commands::ActiveMQTextMessage** (p.577), **activemq::commands::ActiveMQTopic** (p.601), **activemq::commands::BaseCommand** (p.655), **activemq::commands::BooleanExpression** (p.738), **activemq::commands::BrokerId** (p.753), **activemq::commands::BrokerInfo** (p.780), **activemq::commands::Command** (p.1067), **activemq::commands::ConnectionControl** (p.1138), **activemq::commands::ConnectionError** (p.1162), **activemq::commands::ConnectionId** (p.1189), **activemq::commands::ConnectionInfo** (p.1215), **activemq::commands::ConsumerControl** (p.1253), **activemq::commands::ConsumerId** (p.1278), **activemq::commands::ConsumerInfo** (p.1305), **activemq::commands::ControlCommand** (p.1332), **activemq::commands::DataArrayResponse** (p.1358), **activemq::commands::DataResponse** (p.1397), **activemq::commands::DestinationInfo** (p.1487), **activemq::commands::DiscoveryEvent** (p.1513), **activemq::commands::ExceptionResponse** (p.1584), **activemq::commands::FlushCommand** (p.1678), **activemq::commands::IntegerResponse** (p.1779), **activemq::commands::JournalQueueAck** (p.1836), **activemq::commands::JournalTopicAck** (p.1861), **activemq::commands::JournalTrace** (p.1885), **activemq::commands::JournalTransaction** (p.1908), **activemq::commands::KeepAliveInfo** (p.1932), **activemq::commands::LastPartialCommand** (p.1960), **activemq::commands::LocalTransactionId** (p.1996), **activemq::commands::Message** (p.2159), **activemq::commands::MessageAck**



(p. 2192), [activemq::commands::MessageDispatch](#) (p. 2222), [activemq::commands::MessageDispatchNotification](#) (p. 2255), [activemq::commands::MessageId](#) (p. 2282), [activemq::commands::MessagePull](#) (p. 2349), [activemq::commands::NetworkBridgeFilter](#) (p. 2395), [activemq::commands::PartialCommand](#) (p. 2475), [activemq::commands::ProducerAck](#) (p. 2581), [activemq::commands::ProducerId](#) (p. 2609), [activemq::commands::ProducerInfo](#) (p. 2634), [activemq::commands::RemoveInfo](#) (p. 2705), [activemq::commands::RemoveSubscriptionInfo](#) (p. 2730), [activemq::commands::ReplayCommand](#) (p. 2754), [activemq::commands::Response](#) (p. 2783), [activemq::commands::SessionId](#) (p. 2856), [activemq::commands::SessionInfo](#) (p. 2879), [activemq::commands::ShutdownInfo](#) (p. 2936), [activemq::commands::SubscriptionInfo](#) (p. 3100), [activemq::commands::TransactionId](#) (p. 3219), [activemq::commands::TransactionInfo](#) (p. 3243), [activemq::commands::WireFormatInfo](#) (p. 3378), and [activemq::commands::XATransactionId](#) (p. 3413).

Referenced by [activemq::commands::BooleanExpression::toString\(\)](#), and [activemq::commands::BaseCommand::toString\(\)](#).

The documentation for this class was generated from the following file:

- [src/main/activemq/commands/BaseDataStructure.h](#)

## 6.117 `binary_function` Class Reference

Inheritance diagram for `binary_function`:

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Comparator.h`

## 6.118 decaf::net::BindException Class Reference

#include <src/main/decaf/net/BindException.h> Inheritance diagram for decaf::net::BindException:

### Public Member Functions

- **BindException** () throw ()  
*Default Constructor.*
- **BindException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **BindException** (const **BindException** &ex) throw ()  
*Copy Constructor.*
- **BindException** (const char \*file, const int lineNumber, const std::exception \***cause**, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **BindException** (const std::exception \***cause**) throw ()  
*Constructor.*
- **BindException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **BindException** \* **clone** () const  
*Clones this exception.*
- virtual ~**BindException** () throw ()

### 6.118.1 Constructor & Destructor Documentation

#### 6.118.1.1 decaf::net::BindException::BindException () throw () [inline]

Default Constructor.

#### 6.118.1.2 decaf::net::BindException::BindException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.118.1.3** `decaf::net::BindException::BindException (const BindException & ex)  
throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.118.1.4** `decaf::net::BindException::BindException (const char * file, const int  
lineNumber, const std::exception * cause, const char * msg, ...) throw  
() [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.118.1.5** `decaf::net::BindException::BindException (const std::exception * cause)  
throw () [inline]`

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.118.1.6** `decaf::net::BindException::BindException (const char * file, const int  
lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.118.1.7**    `virtual decaf::net::BindException::~~BindException () throw ()` [inline, virtual]

## 6.118.2 Member Function Documentation

**6.118.2.1**    `virtual BindException* decaf::net::BindException::clone () const`  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::net::SocketException** (p. 2973).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/BindException.h`

## 6.119 decaf::io::BlockingByteArrayInputStream Class Reference

This is a blocking version of a byte buffer stream.

#include <src/main/decaf/io/BlockingByteArrayInputStream.h> Inheritance diagram for decaf::io::BlockingByteArrayInputStream:

### Public Member Functions

- **BlockingByteArrayInputStream** ()  
*Default Constructor - uses a default internal buffer.*
- **BlockingByteArrayInputStream** (const unsigned char \*buffer, std::size\_t bufferSize)  
*Constructor that initializes the internal buffer.*
- virtual ~**BlockingByteArrayInputStream** ()  
*Destructor.*
- virtual void **setByteArray** (const unsigned char \*buffer, std::size\_t bufferSize)  
*Sets the data that this reader uses.*
- virtual std::size\_t **available** () const throw ( IOException )  
*Indicates the number of bytes available to be read without blocking.*
- virtual int **read** () throw ( IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( IOException, lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*
- virtual void **close** () throw ( io::IOException )  
*Closes the target input stream.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Skips over and discards n bytes of data from this input stream.*
- virtual void **mark** (int readLimit DECAF\_UNUSED)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( IOException )  
*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const

*Determines if this input stream supports the mark and reset methods.*

- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.119.1 Detailed Description

This is a blocking version of a byte buffer stream. Read operations block until the requested data becomes available in the internal buffer via a call to setByteArray.

### 6.119.2 Constructor & Destructor Documentation

#### 6.119.2.1 decaf::io::BlockingByteArrayInputStream::BlockingByteArrayInputStream ()

Default Constructor - uses a default internal buffer.

### 6.119.2.2 `decaf::io::BlockingByteArrayInputStream::BlockingByteArrayInputStream (const unsigned char * buffer, std::size_t bufferSize)`

Constructor that initializes the internal buffer.

See also:

`setByteArray` (p. 729).

### 6.119.2.3 `virtual decaf::io::BlockingByteArrayInputStream::~~BlockingByteArrayInputStream ()` [virtual]

Destructor.

## 6.119.3 Member Function Documentation

### 6.119.3.1 `virtual std::size_t decaf::io::BlockingByteArrayInputStream::available () const throw ( IOException )` [inline, virtual]

Indicates the number of bytes available to be read without blocking.

Returns:

the data available in the internal buffer.

Exceptions:

*IOException* (p. 1820) if an error occurs.

Implements `decaf::io::InputStream` (p. 1741).

### 6.119.3.2 `virtual void decaf::io::BlockingByteArrayInputStream::close () throw ( io::IOException )` [virtual]

Closes the target input stream.

Exceptions:

*IOException* (p. 1820) if an error occurs.

Implements `decaf::io::Closeable` (p. 1019).

### 6.119.3.3 `virtual void decaf::io::BlockingByteArrayInputStream::lock () throw ( decaf::lang::exceptions::RuntimeException )` [inline, virtual]

Locks the object.

Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).



### 6.119.3.4 virtual void decaf::io::BlockingByteArrayInputStream::mark (int readLimit *DECAF\_UNUSED*) [inline, virtual]

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

#### Parameters:

*readLimit* - max bytes read before marked position is invalid.

Implements **decaf::io::InputStream** (p. 1741).

### 6.119.3.5 virtual bool decaf::io::BlockingByteArrayInputStream::markSupported () const [inline, virtual]

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

#### Returns:

true if this stream instance supports marks

Implements **decaf::io::InputStream** (p. 1741).

### 6.119.3.6 virtual void decaf::io::BlockingByteArrayInputStream::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3124).

### 6.119.3.7 virtual void decaf::io::BlockingByteArrayInputStream::notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

**6.119.3.8** `virtual int decaf::io::BlockingByteArrayInputStream::read (unsigned char * buffer, std::size_t offset, std::size_t bufferSize) throw ( IOException, lang::exceptions::NullPointerException ) [virtual]`

Reads an array of bytes from the buffer. If the desired amount of data is not currently available, this operation will block until the appropriate amount of data is available in the buffer via a call to `setByteArray`.

**Parameters:**

*buffer* (out) the target buffer  
*offset* the position in the buffer to start from.  
*bufferSize* the size of the output buffer.

**Returns:**

the number of bytes read. or -1 if EOF

**Exceptions:**

*IOException* (p. 1820) if an error occurs.

Implements **decaf::io::InputStream** (p. 1742).

**6.119.3.9** `virtual int decaf::io::BlockingByteArrayInputStream::read () throw ( IOException ) [virtual]`

Reads a single byte from the buffer. This operation will block until data has been added to the buffer via a call to `setByteArray`.

**Returns:**

the next byte.

**Exceptions:**

*IOException* (p. 1820) if an error occurs.

Implements **decaf::io::InputStream** (p. 1742).

**6.119.3.10** `virtual void decaf::io::BlockingByteArrayInputStream::reset () throw ( IOException ) [inline, virtual]`

Repositions this stream to the position at the time the `mark` method was last called on this input stream. If the method `markSupported` returns true, then: \* If the method `mark` has not been called since the stream was created, or the number of bytes read from the stream since `mark` was last called is larger than the argument to `mark` at that last call, then an **IOException** (p. 1820) might be thrown. \* If such an **IOException** (p. 1820) is not thrown, then the stream is reset

to a state such that all the bytes read since the most recent call to mark (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the read method, followed by any bytes that otherwise would have been the next input data as of the time of the call to reset. If the method markSupported returns false, then: \* The call to reset may throw an **IOException** (p. 1820). \* If an **IOException** (p. 1820) is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the read method depend on the particular type of the input stream.

#### Exceptions:

*IOException* (p. 1820)

Implements **decaf::io::InputStream** (p. 1742).

#### 6.119.3.11 virtual void decaf::io::BlockingByteArrayInputStream::setByteArray (const unsigned char \* *buffer*, std::size\_t *bufferSize*) [virtual]

Sets the data that this reader uses. Replaces any existing data and resets the read index to the beginning of the buffer. When this method is called, it notifies any other threads that data is now available to be read.

#### Parameters:

*buffer* The new data to be copied to the internal buffer.

*bufferSize* The size of the new buffer.

#### 6.119.3.12 virtual std::size\_t decaf::io::BlockingByteArrayInputStream::skip (std::size\_t *num*) throw ( io::IOException, lang::exceptions::UnsupportedOperationException ) [virtual]

Skips over and discards *n* bytes of data from this input stream. The skip method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from any of a number of conditions; reaching end of file before *n* bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If *n* is negative, no bytes are skipped.

The skip method of **InputStream** (p. 1740) creates a byte array and then repeatedly reads into it until *n* bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

#### Parameters:

*num* - the number of bytes to skip

#### Returns:

total bytes skipped

#### Exceptions:

*IOException* (p. 1820) if an error occurs

Implements **decaf::io::InputStream** (p. 1743).

**6.119.3.13** `virtual bool decaf::io::BlockingByteArrayInputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3126).

**6.119.3.14** `virtual void decaf::io::BlockingByteArrayInputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3127).

**6.119.3.15** `virtual void decaf::io::BlockingByteArrayInputStream::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.119.3.16** virtual void decaf::io::BlockingByteArrayInputStream::wait (long long *milliseconds*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.119.3.17** virtual void decaf::io::BlockingByteArrayInputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- src/main/decaf/io/BlockingByteArrayInputStream.h

## 6.120 decaf::lang::Boolean Class Reference

#include <src/main/decaf/lang/Boolean.h> Inheritance diagram for decaf::lang::Boolean:

### Public Member Functions

- **Boolean** (bool value)
- **Boolean** (const std::string &value)
- virtual ~**Boolean** ()
- bool **booleanValue** () const
- std::string **toString** () const
- virtual int **compareTo** (const **Boolean** &b) const  
*Compares this **Boolean** (p. 732) instance with another.*
- virtual bool **operator==** (const **Boolean** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Boolean** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- bool **equals** (const **Boolean** &b) const
- virtual int **compareTo** (const bool &b) const  
*Compares this **Boolean** (p. 732) instance with another.*
- virtual bool **operator==** (const bool &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const bool &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- bool **equals** (const bool &b) const

### Static Public Member Functions

- static **Boolean** **valueOf** (bool value)
- static **Boolean** **valueOf** (const std::string &value)
- static bool **parseBoolean** (const std::string &value)  
*Parses the String passed and extracts an bool.*
- static std::string **toString** (bool value)  
*Converts the bool to a String representation.*

## Static Public Attributes

- static const **Boolean** **\_FALSE**

*The Class object representing the primitive false boolean.*

- static const **Boolean** **\_TRUE**

*The Class object representing the primitive type boolean.*

## 6.120.1 Constructor & Destructor Documentation

### 6.120.1.1 decaf::lang::Boolean::Boolean (bool *value*)

#### Parameters:

*value* - primitive boolean to wrap.

### 6.120.1.2 decaf::lang::Boolean::Boolean (const std::string & *value*)

#### Parameters:

*value* - String value to convert to a boolean.

### 6.120.1.3 virtual decaf::lang::Boolean::~~Boolean () [inline, virtual]

## 6.120.2 Member Function Documentation

### 6.120.2.1 bool decaf::lang::Boolean::booleanValue () const [inline]

#### Returns:

the primitive boolean value of this object

### 6.120.2.2 virtual int decaf::lang::Boolean::compareTo (const bool & *b*) const [virtual]

Compares this **Boolean** (p. 732) instance with another.

#### Parameters:

*b* - the **Boolean** (p. 732) instance to be compared

#### Returns:

zero if this object represents the same boolean value as the argument; a positive value if this object represents true and the argument represents false; and a negative value if this object represents false and the argument represents true

Implements **decaf::lang::Comparable**< **bool** > (p. 1083).

**6.120.2.3** `virtual int decaf::lang::Boolean::compareTo (const Boolean & b) const`  
[virtual]

Compares this **Boolean** (p. 732) instance with another.

**Parameters:**

*b* - the **Boolean** (p. 732) instance to be compared

**Returns:**

zero if this object represents the same boolean value as the argument; a positive value if this object represents true and the argument represents false; and a negative value if this object represents false and the argument represents true

Implements **decaf::lang::Comparable**< **Boolean** > (p. 1083).

**6.120.2.4** `bool decaf::lang::Boolean::equals (const bool & b) const` [inline,  
virtual]

**Returns:**

true if the two **Boolean** (p. 732) Objects have the same value.

Implements **decaf::lang::Comparable**< **bool** > (p. 1084).

**6.120.2.5** `bool decaf::lang::Boolean::equals (const Boolean & b) const` [inline,  
virtual]

**Returns:**

true if the two **Boolean** (p. 732) Objects have the same value.

Implements **decaf::lang::Comparable**< **Boolean** > (p. 1084).

**6.120.2.6** `virtual bool decaf::lang::Boolean::operator< (const bool & value) const`  
[virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable**< **bool** > (p. 1084).



**6.120.2.7 virtual bool decaf::lang::Boolean::operator< (const Boolean & *value*) const** [virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Boolean >** (p. 1084).

**6.120.2.8 virtual bool decaf::lang::Boolean::operator== (const bool & *value*) const** [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< bool >** (p. 1085).

**6.120.2.9 virtual bool decaf::lang::Boolean::operator== (const Boolean & *value*) const** [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Boolean >** (p. 1085).

**6.120.2.10 static bool decaf::lang::Boolean::parseBoolean (const std::string & *value*)** [static]

Parses the String passed and extracts an bool.

**Parameters:**

*value* The std::string value to parse

**Returns:**

bool value

**6.120.2.11** `static std::string decaf::lang::Boolean::toString (bool value) [static]`

Converts the bool to a String representation.

**Parameters:**

*value* The bool value to convert.

**Returns:**

std::string representation of the bool value passed.

**6.120.2.12** `std::string decaf::lang::Boolean::toString () const`**Returns:**

the string representation of this Booleans value.

**6.120.2.13** `static Boolean decaf::lang::Boolean::valueOf (const std::string & value) [static]`**Parameters:**

*value* The std::string value to convert to a Boolean (p. 732) instance.

**Returns:**

a **Boolean** (p. 732) instance of the string value

**6.120.2.14** `static Boolean decaf::lang::Boolean::valueOf (bool value) [static]`**Parameters:**

*value* The bool value to convert to a Boolean (p. 732) instance.

**Returns:**

a **Boolean** (p. 732) instance of the primitive boolean value

**6.120.3** **Field Documentation****6.120.3.1** `const Boolean decaf::lang::Boolean::_FALSE [static]`

The Class object representing the primitive false boolean.

**6.120.3.2** `const Boolean decaf::lang::Boolean::_TRUE [static]`

The Class object representing the primitive type boolean.

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**Boolean.h**

## 6.121 activemq::commands::BooleanExpression Class Reference

#include <src/main/activemq/commands/BooleanExpression.h> Inheritance diagram for activemq::commands::BooleanExpression:

### Public Member Functions

- **BooleanExpression** ()
- virtual **~BooleanExpression** ()
- virtual **DataStream \* cloneDataStream** () const  
*Clone this obbect and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStream** (const **DataStream** \*src AMQCPP\_UNUSED)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStream** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStream** \*value) const  
*Compares the **DataStream** (p. 1461) passed in to this one, and returns if they are equivalent.*

### 6.121.1 Constructor & Destructor Documentation

- 6.121.1.1 **activemq::commands::BooleanExpression::BooleanExpression** ()  
[inline]
- 6.121.1.2 **virtual activemq::commands::BooleanExpression::~~BooleanExpression** ()  
[inline, virtual]

### 6.121.2 Member Function Documentation

- 6.121.2.1 **virtual DataStream\* activemq::commands::BooleanExpression::cloneDataStream** () const  
[inline, virtual]

Clone this obbect and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStream** (p. 1461).

**6.121.2.2** `virtual void activemq::commands::BooleanExpression::copyDataStructure (const DataStructure *src AMQCPP_UNUSED) [inline, virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::BaseDataStructure` (p. 717).

**6.121.2.3** `virtual bool activemq::commands::BooleanExpression::equals (const DataStructure * value) const [inline, virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

References `activemq::commands::BaseDataStructure::equals()`.

**6.121.2.4** `virtual std::string activemq::commands::BooleanExpression::toString () const [inline, virtual]`

Returns a string containing the information for this `DataStructure` (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p. 718).

References `activemq::commands::BaseDataStructure::toString()`.

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/BooleanExpression.h`

## 6.122 activemq::wireformat::openwire::utils::BooleanStream Class Reference

Manages the writing and reading of boolean data streams to and from a data source such as a `DataInputStream` or `DataOutputStream`.

```
#include <src/main/activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Public Member Functions

- **BooleanStream** ()
- virtual **~BooleanStream** ()
- bool **readBoolean** () throw ( decaf::io::IOException )  
*Read a boolean data element from the internal data buffer.*
- void **writeBoolean** (bool value) throw ( decaf::io::IOException )  
*Writes a Boolean value to the internal data buffer.*
- void **marshal** (decaf::io::DataOutputStream \*dataOut) throw ( decaf::io::IOException )  
*Marshal the data to a DataOutputStream.*
- void **marshal** (std::vector< unsigned char > &dataOut)  
*Marshal the data to a STL vector of unsigned chars.*
- void **unmarshal** (decaf::io::DataInputStream \*dataIn) throw ( decaf::io::IOException )  
*Unmarshal a Boolean data stream from the Input Stream.*
- void **clear** ()  
*Clears to old position markers, data starts at the beginning.*
- int **marshalledSize** ()  
*Calc the size that data is marshalled to.*

### 6.122.1 Detailed Description

Manages the writing and reading of boolean data streams to and from a data source such as a `DataInputStream` or `DataOutputStream`. The booleans are stored as single bits in the stream, with the stream size pre-pended to the stream when the data is marshalled.

The serialized form of the size field can be between 1 and 3 bytes. If the number of used bytes < 64, size=1 byte If the number of used bytes >=64 and < 256 (size of an unsigned byte), size=2 bytes If the number of used bytes >=256, size=3 bytes

The high-order 2 bits (128 and 64) of the first byte of the size field are used to encode the information about the number of bytes in the size field. The only time the first byte will contain a value >=64 is if there are more bytes in the size field. If the first byte < 64, the value of the byte is simply the size value. If the first byte = 0xC0, the following unsigned byte is the size field. If the first byte = 0x80, the following short (two bytes) are the size field.

## 6.122.2 Constructor & Destructor Documentation

**6.122.2.1** `activemq::wireformat::openwire::utils::BooleanStream::BooleanStream ()`

**6.122.2.2** `virtual  
activemq::wireformat::openwire::utils::BooleanStream::~~BooleanStream  
( ) [inline, virtual]`

## 6.122.3 Member Function Documentation

**6.122.3.1** `void activemq::wireformat::openwire::utils::BooleanStream::clear ()`

Clears to old position markers, data starts at the beginning.

**6.122.3.2** `void activemq::wireformat::openwire::utils::BooleanStream::marshal  
(std::vector< unsigned char > & dataOut)`

Marshal the data to a STL vector of unsigned chars.

### Parameters:

*dataOut* - reference to a vector to write the data to.

**6.122.3.3** `void activemq::wireformat::openwire::utils::BooleanStream::marshal  
(decaf::io::DataOutputStream * dataOut) throw ( decaf::io::IOException )`

Marshal the data to a DataOutputStream.

### Parameters:

*dataOut* - Stream to write the data to.

**6.122.3.4** `int activemq::wireformat::openwire::utils::BooleanStream::marshalledSize  
( )`

Calc the size that data is marshalled to.

### Returns:

int size of marshalled data.

**6.122.3.5** `bool activemq::wireformat::openwire::utils::BooleanStream::readBoolean  
( ) throw ( decaf::io::IOException )`

Read a boolean data element from the internal data buffer.

### Returns:

boolean from the stream

**6.122.3.6**    `void activemq::wireformat::openwire::utils::BooleanStream::unmarshal  
(decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )`

Unmarshal a Boolean data stream from the Input Stream.

**Parameters:**

*dataIn* - Input Stream to read data from.

**6.122.3.7**    `void activemq::wireformat::openwire::utils::BooleanStream::writeBoolean  
(bool value) throw ( decaf::io::IOException )`

Writes a Boolean value to the internal data buffer.

**Parameters:**

*value* - boolean data to write.

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/utils/BooleanStream.h`

## 6.123 decaf::util::concurrent::BrokenBarrierException Class Reference

#include <src/main/decaf/util/concurrent/BrokenBarrierException.h> Inheritance diagram for decaf::util::concurrent::BrokenBarrierException:

### Public Member Functions

- **BrokenBarrierException** () throw ()  
*Default Constructor.*
- **BrokenBarrierException** (const decaf::lang::Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **BrokenBarrierException** (const BrokenBarrierException &ex) throw ()  
*Copy Constructor.*
- **BrokenBarrierException** (const std::exception \*cause) throw ()  
*Constructor.*
- **BrokenBarrierException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **BrokenBarrierException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **BrokenBarrierException** \* clone () const  
*Clones this exception.*
- virtual ~**BrokenBarrierException** () throw ()

### 6.123.1 Constructor & Destructor Documentation

#### 6.123.1.1 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException () throw () [inline]

Default Constructor.

#### 6.123.1.2 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException (const decaf::lang::Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception



References decaf::lang::Exception::Exception().

#### 6.123.1.3 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException (const BrokenBarrierException & *ex*) throw () [inline]

Copy Constructor.

##### Parameters:

*ex* The Exception to copy in this new instance.

References decaf::lang::Exception::Exception().

#### 6.123.1.4 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException (const std::exception \* *cause*) throw () [inline]

Constructor.

##### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

#### 6.123.1.5 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

##### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*msg* - The message to report

... - list of primitives that are formatted into the message

#### 6.123.1.6 decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

##### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*cause* - The exception that was the cause for this one to be thrown.

*msg* - The message to report

... - list of primitives that are formatted into the message

**6.123.1.7**   **virtual**  
**decaf::util::concurrent::BrokenBarrierException::~~BrokenBarrierException**  
**() throw ()**   [inline, virtual]

## **6.123.2**   **Member Function Documentation**

**6.123.2.1**   **virtual BrokenBarrierException\* de-**  
**caf::util::concurrent::BrokenBarrierException::clone ()**  
**const**   [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

a new instance of an exception that is a clone of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/BrokenBarrierException.h`

## 6.124 activemq::commands::BrokerError Class Reference

This class represents an Exception sent from the Broker.

#include <src/main/activemq/commands/BrokerError.h> Inheritance diagram for activemq::commands::BrokerError:

### Data Structures

- struct **StackTraceElement**

### Public Member Functions

- **BrokerError** ()
- virtual **~BrokerError** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the **DataStructure** (p. 1461) Type as defined in **CommandTypes.h**.*
- virtual **BrokerError** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual **decaf::lang::Pointer**< **commands::Command** > **visit** (**activemq::state::CommandVisitor** \*visitor) throw ( **exceptions::ActiveMQException** )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*
- virtual const std::string & **getMessage** () const  
*Gets the string holding the error message.*
- virtual void **setMessage** (const std::string &message)  
*Sets the string that contains the error **Message** (p. 2145).*
- virtual const std::string & **getExceptionClass** () const  
*Gets the string holding the Exception Class name.*
- virtual void **setExceptionClass** (const std::string &exceptionClass)  
*Sets the string that contains the Exception Class name.*
- virtual const **decaf::lang::Pointer**< **BrokerError** > & **getCause** () const  
*Gets the Broker Error that caused this exception.*
- virtual void **setCause** (const **decaf::lang::Pointer**< **BrokerError** > &cause)  
*Sets the Broker Error that caused this exception.*

- virtual const std::vector< **decaf::lang::Pointer< StackTraceElement > > & getStackTraceElements** () const

*Gets the Stack Trace Elements for the Exception.*

- virtual void **setStackTraceElements** (const std::vector< **decaf::lang::Pointer< StackTraceElement > > & stackTraceElements**)

*Sets the Stack Trace Elements for this Exception.*

### 6.124.1 Detailed Description

This class represents an Exception sent from the Broker. The Broker sends java Throwables, so we must mimic its structure here.

### 6.124.2 Constructor & Destructor Documentation

**6.124.2.1** **activemq::commands::BrokerError::BrokerError** () [inline]

**6.124.2.2** **virtual activemq::commands::BrokerError::~~BrokerError** () [virtual]

### 6.124.3 Member Function Documentation

**6.124.3.1** **virtual BrokerError\* activemq::commands::BrokerError::cloneDataStructure** ()  
const [inline, virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

References **copyDataStructure()**.

**6.124.3.2** **virtual void activemq::commands::BrokerError::copyDataStructure**  
(const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

#### Returns:

src - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

Referenced by **cloneDataStructure()**.

**6.124.3.3** `virtual const decaf::lang::Pointer<BrokerError>&  
activemq::commands::BrokerError::getCause () const [inline, virtual]`

Gets the Broker Error that caused this exception.

**Returns:**

Broker Error Pointer

**6.124.3.4** `virtual unsigned char ac-  
tivismq::commands::BrokerError::getDataStructureType ()  
const [inline, virtual]`

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.

**Returns:**

The type of the data structure

Implements **activemq::commands::DataStructure** (p. 1464).

**6.124.3.5** `virtual const std::string& ac-  
tivismq::commands::BrokerError::getExceptionClass ()  
const [inline, virtual]`

Gets the string holding the Exception Class name.

**Returns:**

Exception Class name

**6.124.3.6** `virtual const std::string& activemq::commands::BrokerError::getMessage  
() const [inline, virtual]`

Gets the string holding the error message.

**Returns:**

String Message (p. 2145)

**6.124.3.7** `virtual const std::vector< decaf::lang::Pointer<StackTraceElement> >&  
activemq::commands::BrokerError::getStackTraceElements () const  
[inline, virtual]`

Gets the Stack Trace Elements for the Exception.

**Returns:**

Stack Trace Elements

**6.124.3.8** `virtual void activemq::commands::BrokerError::setCause (const decaf::lang::Pointer< BrokerError > & cause)` [inline, virtual]

Sets the Broker Error that caused this exception.

**Parameters:**

*cause* - Broker Error

**6.124.3.9** `virtual void activemq::commands::BrokerError::setExceptionClass (const std::string & exceptionClass)` [inline, virtual]

Sets the string that contains the Exception Class name.

**Parameters:**

*exceptionClass* - String Exception Class name

**6.124.3.10** `virtual void activemq::commands::BrokerError::setMessage (const std::string & message)` [inline, virtual]

Sets the string that contains the error **Message** (p.2145).

**Parameters:**

*message* - String Error **Message** (p. 2145)

**6.124.3.11** `virtual void activemq::commands::BrokerError::setStackTraceElements (const std::vector< decaf::lang::Pointer< StackTraceElement > > & stackTraceElements)` [inline, virtual]

Sets the Stack Trace Elements for this Exception.

**Parameters:**

*stackTraceElements* - Stack Trace Elements

**6.124.3.12** `virtual decaf::lang::Pointer<commands::Command> activemq::commands::BrokerError::visit (activemq::state::CommandVisitor * visitor) throw (exceptions::ActiveMQException)` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p.1067).

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**BrokerError.h**

## 6.125 activemq::exceptions::BrokerException Class Reference

#include <src/main/activemq/exceptions/BrokerException.h> Inheritance diagram for activemq::exceptions::BrokerException:

### Public Member Functions

- **BrokerException** () throw ()
- **BrokerException** (const exceptions::ActiveMQException &ex) throw ()
- **BrokerException** (const **BrokerException** &ex) throw ()
- **BrokerException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()
- **BrokerException** (const char \*file, const int lineNumber, const commands::BrokerError \*error) throw ()
- virtual **BrokerException** \* **clone** () const  
*Clones this exception.*
- virtual ~**BrokerException** () throw ()

### 6.125.1 Constructor & Destructor Documentation

- 6.125.1.1 **activemq::exceptions::BrokerException::BrokerException** () throw ()  
[inline]
- 6.125.1.2 **activemq::exceptions::BrokerException::BrokerException** (const exceptions::ActiveMQException & *ex*) throw () [inline]
- 6.125.1.3 **activemq::exceptions::BrokerException::BrokerException** (const **BrokerException** & *ex*) throw () [inline]
- 6.125.1.4 **activemq::exceptions::BrokerException::BrokerException** (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]
- 6.125.1.5 **activemq::exceptions::BrokerException::BrokerException** (const char \* *file*, const int *lineNumber*, const commands::BrokerError \* *error*) throw () [inline]

References decaf::lang::Exception::setMark(), and decaf::lang::Exception::setMessage().

- 6.125.1.6 **virtual activemq::exceptions::BrokerException::~~BrokerException** ()  
throw () [inline, virtual]

### 6.125.2 Member Function Documentation

- 6.125.2.1 **virtual BrokerException\*** **activemq::exceptions::BrokerException::clone** () const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

Reimplemented from **activemq::exceptions::ActiveMQException** (p. 306).

The documentation for this class was generated from the following file:

- `src/main/activemq/exceptions/BrokerException.h`



## 6.126 activemq::commands::BrokerId Class Reference

#include <src/main/activemq/commands/BrokerId.h> Inheritance diagram for activemq::commands::BrokerId:

### Public Types

- typedef decaf::lang::PointerComparator< BrokerId > COMPARATOR

### Public Member Functions

- **BrokerId** ()
- **BrokerId** (const **BrokerId** &other)
- virtual ~**BrokerId** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **BrokerId** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getValue** () const
- virtual std::string & **getValue** ()
- virtual void **setValue** (const std::string &value)
- virtual int **compareTo** (const **BrokerId** &value) const
- virtual bool **equals** (const **BrokerId** &value) const
- virtual bool **operator==** (const **BrokerId** &value) const
- virtual bool **operator<** (const **BrokerId** &value) const
- **BrokerId** & **operator=** (const **BrokerId** &other)

### Static Public Attributes

- static const unsigned char **ID\_BROKERID** = 124

### Protected Attributes

- std::string value

### 6.126.1 Member Typedef Documentation

**6.126.1.1** `typedef decaf::lang::PointerComparator<BrokerId>  
activemq::commands::BrokerId::COMPARATOR`

### 6.126.2 Constructor & Destructor Documentation

**6.126.2.1** `activemq::commands::BrokerId::BrokerId ()`

**6.126.2.2** `activemq::commands::BrokerId::BrokerId (const BrokerId & other)`

**6.126.2.3** `virtual activemq::commands::BrokerId::~~BrokerId () [virtual]`

### 6.126.3 Member Function Documentation

**6.126.3.1** `virtual BrokerId* activemq::commands::BrokerId::cloneDataStructure ()  
const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.126.3.2** `virtual int activemq::commands::BrokerId::compareTo (const BrokerId &  
value) const [virtual]`

**6.126.3.3** `virtual void activemq::commands::BrokerId::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

**6.126.3.4** `virtual bool activemq::commands::BrokerId::equals (const BrokerId &  
value) const [virtual]`

**6.126.3.5** `virtual bool activemq::commands::BrokerId::equals (const DataStructure  
* value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.126.3.6** virtual unsigned char activemq::commands::BrokerId::getDataStructureType ()  
const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

**6.126.3.7** virtual std::string& activemq::commands::BrokerId::getValue ()  
[virtual]

**6.126.3.8** virtual const std::string& activemq::commands::BrokerId::getValue ()  
const [virtual]

**6.126.3.9** virtual bool activemq::commands::BrokerId::operator< (const BrokerId  
& *value*) const [virtual]

**6.126.3.10** BrokerId& activemq::commands::BrokerId::operator= (const BrokerId  
& *other*)

**6.126.3.11** virtual bool activemq::commands::BrokerId::operator== (const  
BrokerId & *value*) const [virtual]

**6.126.3.12** virtual void activemq::commands::BrokerId::setValue (const std::string  
& *value*) [virtual]

**6.126.3.13** virtual std::string activemq::commands::BrokerId::toString () const  
[virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataStructure** (p. 718).

## 6.126.4 Field Documentation

**6.126.4.1** const unsigned char activemq::commands::BrokerId::ID\_BROKERID =  
124 [static]

**6.126.4.2** std::string activemq::commands::BrokerId::value [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/`**BrokerId.h**

## 6.127 activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 755).

#include <src/main/activemq/wireformat/openwire/marshal/v3/BrokerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller:

### Public Member Functions

- **BrokerIdMarshaller** ()
- virtual **~BrokerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.127.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 755). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.127.2 Constructor & Destructor Documentation

**6.127.2.1** `activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::BrokerIdMarshaller()` [inline]

**6.127.2.2** `virtual activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::~~BrokerIdMarshaller()` [inline, virtual]

## 6.127.3 Member Function Documentation

**6.127.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.127.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.127.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.127.3.4** virtual void **activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - **BinaryReader** that provides that data source

**Exceptions:**

**IOException** if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.127.3.5** virtual int **activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a **BooleanStream**.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - **BooleanStream** stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

**IOException** if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.127.3.6** virtual void activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.127.3.7** virtual void activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**BrokerIdMarshaller.h**



## 6.128 activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 759).

#include <src/main/activemq/wireformat/openwire/marshal/v1/BrokerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller:

### Public Member Functions

- **BrokerIdMarshaller** ()
- virtual **~BrokerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.128.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 759). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.128.2 Constructor & Destructor Documentation

**6.128.2.1** `activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::BrokerIdMarshaller()` [inline]

**6.128.2.2** `virtual activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::~~BrokerIdMarshaller()` [inline, virtual]

## 6.128.3 Member Function Documentation

**6.128.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.128.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.128.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.128.3.4** virtual void **activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - **BinaryReader** that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.128.3.5** virtual int **activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a **BooleanStream**.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - **BooleanStream** stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.128.3.6** virtual void activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.128.3.7** virtual void activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**BrokerIdMarshaller.h**

## 6.129 activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 763).

#include <src/main/activemq/wireformat/openwire/marshal/v4/BrokerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller:

### Public Member Functions

- **BrokerIdMarshaller** ()
- virtual **~BrokerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.129.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 763). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.129.2 Constructor & Destructor Documentation

**6.129.2.1** `activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::BrokerIdMarshaller()` [inline]

**6.129.2.2** `virtual activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::~~BrokerIdMarshaller()` [inline, virtual]

## 6.129.3 Member Function Documentation

**6.129.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.129.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.129.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.129.3.4** virtual void **activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.129.3.5** virtual int **activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::tightMarshal1** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.129.3.6** virtual void activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.129.3.7** virtual void activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**BrokerIdMarshaller.h**



## 6.130 activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 767).

#include <src/main/activemq/wireformat/openwire/marshal/v5/BrokerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller:

### Public Member Functions

- **BrokerIdMarshaller** ()
- virtual **~BrokerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.130.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 767). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.130.2 Constructor & Destructor Documentation

**6.130.2.1** `activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::BrokerIdMarshaller()` [inline]

**6.130.2.2** `virtual activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::~~BrokerIdMarshaller()` [inline, virtual]

## 6.130.3 Member Function Documentation

**6.130.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.130.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.130.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.130.3.4** virtual void **activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - **BinaryReader** that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.130.3.5** virtual int **activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a **BooleanStream**.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - **BooleanStream** stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.130.3.6** virtual void activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.130.3.7** virtual void activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**BrokerIdMarshaller.h**

## 6.131 activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 771).

#include <src/main/activemq/wireformat/openwire/marshal/v2/BrokerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller:

### Public Member Functions

- **BrokerIdMarshaller** ()
- virtual **~BrokerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.131.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 771). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.131.2 Constructor & Destructor Documentation

**6.131.2.1** `activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::BrokerIdMarshaller()` [inline]

**6.131.2.2** `virtual activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::~~BrokerIdMarshaller()` [inline, virtual]

## 6.131.3 Member Function Documentation

**6.131.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.131.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.131.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.131.3.4** virtual void **activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - **BinaryReader** that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.131.3.5** virtual int **activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a **BooleanStream**.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - **BooleanStream** stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.131.3.6** virtual void activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.131.3.7** virtual void activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**BrokerIdMarshaller.h**



## 6.132 activemq::commands::BrokerInfo Class Reference

#include <src/main/activemq/commands/BrokerInfo.h> Inheritance diagram for activemq::commands::BrokerInfo:

### Public Member Functions

- **BrokerInfo** ()
- virtual **~BrokerInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **BrokerInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **BrokerId** > & **getBrokerId** () const
- virtual **Pointer**< **BrokerId** > & **getBrokerId** ()
- virtual void **setBrokerId** (const **Pointer**< **BrokerId** > &brokerId)
- virtual const std::string & **getBrokerURL** () const
- virtual std::string & **getBrokerURL** ()
- virtual void **setBrokerURL** (const std::string &brokerURL)
- virtual const std::vector< **decaf::lang::Pointer**< **BrokerInfo** > > & **getPeerBrokerInfos** () const
- virtual std::vector< **decaf::lang::Pointer**< **BrokerInfo** > > & **getPeerBrokerInfos** ()
- virtual void **setPeerBrokerInfos** (const std::vector< **decaf::lang::Pointer**< **BrokerInfo** > > &peerBrokerInfos)
- virtual const std::string & **getBrokerName** () const
- virtual std::string & **getBrokerName** ()
- virtual void **setBrokerName** (const std::string &brokerName)
- virtual bool **isSlaveBroker** () const
- virtual void **setSlaveBroker** (bool slaveBroker)
- virtual bool **isMasterBroker** () const
- virtual void **setMasterBroker** (bool masterBroker)
- virtual bool **isFaultTolerantConfiguration** () const
- virtual void **setFaultTolerantConfiguration** (bool faultTolerantConfiguration)
- virtual bool **isDuplexConnection** () const
- virtual void **setDuplexConnection** (bool duplexConnection)

- virtual bool **isNetworkConnection** () const
- virtual void **setNetworkConnection** (bool **networkConnection**)
- virtual long long **getConnectionId** () const
- virtual void **setConnectionId** (long long **connectionId**)
- virtual const std::string & **getBrokerUploadUrl** () const
- virtual std::string & **getBrokerUploadUrl** ()
- virtual void **setBrokerUploadUrl** (const std::string &**brokerUploadUrl**)
- virtual const std::string & **getNetworkProperties** () const
- virtual std::string & **getNetworkProperties** ()
- virtual void **setNetworkProperties** (const std::string &**networkProperties**)
- virtual bool **isBrokerInfo** () const
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )

*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID\_BROKERINFO** = 2

## Protected Member Functions

- **BrokerInfo** (const **BrokerInfo** &)
- **BrokerInfo** & **operator=** (const **BrokerInfo** &)

## Protected Attributes

- **Pointer< BrokerId > brokerId**
- std::string **brokerURL**
- std::vector< decaf::lang::Pointer< **BrokerInfo** > > **peerBrokerInfos**
- std::string **brokerName**
- bool **slaveBroker**
- bool **masterBroker**
- bool **faultTolerantConfiguration**
- bool **duplexConnection**
- bool **networkConnection**
- long long **connectionId**
- std::string **brokerUploadUrl**
- std::string **networkProperties**

## 6.132.1 Constructor & Destructor Documentation

**6.132.1.1** `activemq::commands::BrokerInfo::BrokerInfo (const BrokerInfo &)`  
[inline, protected]

**6.132.1.2** `activemq::commands::BrokerInfo::BrokerInfo ()`

**6.132.1.3** `virtual activemq::commands::BrokerInfo::~~BrokerInfo ()` [virtual]

## 6.132.2 Member Function Documentation

**6.132.2.1** `virtual BrokerInfo* activemq::commands::BrokerInfo::cloneDataStructure () const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.132.2.2** `virtual void activemq::commands::BrokerInfo::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.132.2.3** `virtual bool activemq::commands::BrokerInfo::equals (const DataStructure * value) const` [virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

- 6.132.2.4 `virtual Pointer<BrokerId>& activemq::commands::BrokerInfo::getBrokerId ()`  
[virtual]
- 6.132.2.5 `virtual const Pointer<BrokerId>& activemq::commands::BrokerInfo::getBrokerId () const`  
[virtual]
- 6.132.2.6 `virtual std::string& activemq::commands::BrokerInfo::getBrokerName ()`  
[virtual]
- 6.132.2.7 `virtual const std::string& activemq::commands::BrokerInfo::getBrokerName () const`  
[virtual]
- 6.132.2.8 `virtual std::string& activemq::commands::BrokerInfo::getBrokerUploadUrl ()`  
[virtual]
- 6.132.2.9 `virtual const std::string& activemq::commands::BrokerInfo::getBrokerUploadUrl () const` [virtual]
- 6.132.2.10 `virtual std::string& activemq::commands::BrokerInfo::getBrokerURL ()`  
[virtual]
- 6.132.2.11 `virtual const std::string& activemq::commands::BrokerInfo::getBrokerURL () const`  
[virtual]
- 6.132.2.12 `virtual long long activemq::commands::BrokerInfo::getConnectionId () const` [virtual]
- 6.132.2.13 `virtual unsigned char activemq::commands::BrokerInfo::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.132.2.14** `virtual std::string& activemq::commands::BrokerInfo::getNetworkProperties ()`  
[virtual]
- 6.132.2.15** `virtual const std::string& activemq::commands::BrokerInfo::getNetworkProperties ()`  
`const` [virtual]
- 6.132.2.16** `virtual std::vector< decaf::lang::Pointer<BrokerInfo> >& activemq::commands::BrokerInfo::getPeerBrokerInfos ()` [virtual]
- 6.132.2.17** `virtual const std::vector< decaf::lang::Pointer<BrokerInfo> >& activemq::commands::BrokerInfo::getPeerBrokerInfos ()` `const`  
[virtual]
- 6.132.2.18** `virtual bool activemq::commands::BrokerInfo::isBrokerInfo ()` `const`  
[inline, virtual]

**Returns:**

an answer of true to the `isBrokerInfo()` (p. 779) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).

- 6.132.2.19 virtual bool activemq::commands::BrokerInfo::isDuplexConnection () const [virtual]
- 6.132.2.20 virtual bool activemq::commands::BrokerInfo::isFaultTolerantConfiguration () const [virtual]
- 6.132.2.21 virtual bool activemq::commands::BrokerInfo::isMasterBroker () const [virtual]
- 6.132.2.22 virtual bool activemq::commands::BrokerInfo::isNetworkConnection () const [virtual]
- 6.132.2.23 virtual bool activemq::commands::BrokerInfo::isSlaveBroker () const [virtual]
- 6.132.2.24 BrokerInfo& activemq::commands::BrokerInfo::operator= (const BrokerInfo &) [inline, protected]
- 6.132.2.25 virtual void activemq::commands::BrokerInfo::setBrokerId (const Pointer< BrokerId > & *brokerId*) [virtual]
- 6.132.2.26 virtual void activemq::commands::BrokerInfo::setBrokerName (const std::string & *brokerName*) [virtual]
- 6.132.2.27 virtual void activemq::commands::BrokerInfo::setBrokerUploadUrl (const std::string & *brokerUploadUrl*) [virtual]
- 6.132.2.28 virtual void activemq::commands::BrokerInfo::setBrokerURL (const std::string & *brokerURL*) [virtual]
- 6.132.2.29 virtual void activemq::commands::BrokerInfo::setConnectionId (long long *connectionId*) [virtual]
- 6.132.2.30 virtual void activemq::commands::BrokerInfo::setDuplexConnection (bool *duplexConnection*) [virtual]
- 6.132.2.31 virtual void activemq::commands::BrokerInfo::setFaultTolerantConfiguration (bool *faultTolerantConfiguration*) [virtual]
- 6.132.2.32 virtual void activemq::commands::BrokerInfo::setMasterBroker (bool *masterBroker*) [virtual]
- 6.132.2.33 virtual void activemq::commands::BrokerInfo::setNetworkConnection (bool *networkConnection*) [virtual]
- 6.132.2.34 virtual void activemq::commands::BrokerInfo::setNetworkProperties (const std::string & *networkProperties*) [virtual]
- 6.132.2.35 virtual void activemq::commands::BrokerInfo::setPeerBrokerInfos (const std::vector< decaf::lang::Pointer< BrokerInfo > > & *peerBrokerInfos*) [virtual]
- 6.132.2.36 virtual void activemq::commands::BrokerInfo::setSlaveBroker (bool *slaveBroker*) [virtual]
- 6.132.2.37 virtual std::string activemq::commands::BrokerInfo::toString () const [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.132.2.38** `virtual Pointer<Command> activemq::commands::BrokerInfo::visit  
(activemq::state::CommandVisitor * visitor) throw (  
exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

### 6.132.3 Field Documentation

- 6.132.3.1 `Pointer<BrokerId> activemq::commands::BrokerInfo::brokerId` [protected]
- 6.132.3.2 `std::string activemq::commands::BrokerInfo::brokerName` [protected]
- 6.132.3.3 `std::string activemq::commands::BrokerInfo::brokerUploadUrl` [protected]
- 6.132.3.4 `std::string activemq::commands::BrokerInfo::brokerURL` [protected]
- 6.132.3.5 `long long activemq::commands::BrokerInfo::connectionId` [protected]
- 6.132.3.6 `bool activemq::commands::BrokerInfo::duplexConnection` [protected]
- 6.132.3.7 `bool activemq::commands::BrokerInfo::faultTolerantConfiguration` [protected]
- 6.132.3.8 `const unsigned char activemq::commands::BrokerInfo::ID_ -  
BROKERINFO = 2` [static]
- 6.132.3.9 `bool activemq::commands::BrokerInfo::masterBroker` [protected]
- 6.132.3.10 `bool activemq::commands::BrokerInfo::networkConnection` [protected]
- 6.132.3.11 `std::string activemq::commands::BrokerInfo::networkProperties` [protected]
- 6.132.3.12 `std::vector< decaf::lang::Pointer<BrokerInfo> >  
activemq::commands::BrokerInfo::peerBrokerInfos` [protected]
- 6.132.3.13 `bool activemq::commands::BrokerInfo::slaveBroker` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/BrokerInfo.h`



## 6.133 activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 783).

#include <src/main/activemq/wireformat/openwire/marshal/v3/BrokerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller:

### Public Member Functions

- **BrokerInfoMarshaller** ()
- virtual **~BrokerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.133.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 783). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.133.2 Constructor & Destructor Documentation

**6.133.2.1** `activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::BrokerInfoMarshaller()` [inline]

**6.133.2.2** `virtual activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::~~BrokerInfoMarshaller()` [inline, virtual]

## 6.133.3 Member Function Documentation

**6.133.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.133.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.133.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.133.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.133.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.133.3.6** virtual void activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.133.3.7** virtual void activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**BrokerInfoMarshaller.h**

## 6.134 activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 787).

#include <src/main/activemq/wireformat/openwire/marshal/v1/BrokerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller:

### Public Member Functions

- **BrokerInfoMarshaller** ()
- virtual **~BrokerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.134.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 787). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.134.2 Constructor & Destructor Documentation

**6.134.2.1** `activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::BrokerInfoMarshaller()` [inline]

**6.134.2.2** `virtual activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::~~BrokerInfoMarshaller()` [inline, virtual]

## 6.134.3 Member Function Documentation

**6.134.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.134.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.134.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.134.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.134.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.134.3.6** virtual void activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.134.3.7** virtual void activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**BrokerInfoMarshaller.h**



## 6.135 activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 791).

#include <src/main/activemq/wireformat/openwire/marshal/v4/BrokerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller:

### Public Member Functions

- **BrokerInfoMarshaller** ()
- virtual **~BrokerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.135.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 791). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.135.2 Constructor & Destructor Documentation

**6.135.2.1** `activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::BrokerInfoMarshaller()` [inline]

**6.135.2.2** `virtual activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::~~BrokerInfoMarshaller()` [inline, virtual]

## 6.135.3 Member Function Documentation

**6.135.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.135.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.135.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.135.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.135.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.135.3.6** virtual void activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.135.3.7** virtual void activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**BrokerInfoMarshaller.h**

## 6.136 activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 795).

#include <src/main/activemq/wireformat/openwire/marshal/v5/BrokerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller:

### Public Member Functions

- **BrokerInfoMarshaller** ()
- virtual **~BrokerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.136.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 795). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.136.2 Constructor & Destructor Documentation

**6.136.2.1** `activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::BrokerInfoMarshaller()` [inline]

**6.136.2.2** `virtual activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::~~BrokerInfoMarshaller()` [inline, virtual]

## 6.136.3 Member Function Documentation

**6.136.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.136.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.136.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.136.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.136.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.136.3.6** virtual void activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.136.3.7** virtual void activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**BrokerInfoMarshaller.h**



## 6.137 activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 799).

#include <src/main/activemq/wireformat/openwire/marshal/v2/BrokerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller:

### Public Member Functions

- **BrokerInfoMarshaller** ()
- virtual **~BrokerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.137.1 Detailed Description

Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 799). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.137.2 Constructor & Destructor Documentation

**6.137.2.1** `activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::BrokerInfoMarshaller()` [inline]

**6.137.2.2** `virtual activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::~~BrokerInfoMarshaller()` [inline, virtual]

## 6.137.3 Member Function Documentation

**6.137.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.137.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.137.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.137.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.137.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.137.3.6** virtual void activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.137.3.7** virtual void activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**BrokerInfoMarshaller.h**

## 6.138 decaf::nio::Buffer Class Reference

A container for data of a specific primitive type.

#include <src/main/decaf/nio/Buffer.h> Inheritance diagram for decaf::nio::Buffer:

### Public Member Functions

- **Buffer** (std::size\_t capacity)
- **Buffer** (const **Buffer** &other)
- virtual ~**Buffer** ()
- virtual std::size\_t **capacity** () const
- virtual std::size\_t **position** () const
- virtual **Buffer** & **position** (std::size\_t newPosition) throw (lang::exceptions::IllegalArgumentException )  
*Sets this buffer's position.*
- virtual std::size\_t **limit** () const
- virtual **Buffer** & **limit** (std::size\_t newLimit) throw (lang::exceptions::IllegalArgumentException )  
*Sets this buffer's limit.*
- virtual **Buffer** & **mark** ()  
*Sets this buffer's mark at its position.*
- virtual **Buffer** & **reset** () throw ( InvalidMarkException )  
*Resets this buffer's position to the previously-marked position.*
- virtual **Buffer** & **clear** ()  
*Clears this buffer.*
- virtual **Buffer** & **flip** ()  
*Flips this buffer.*
- virtual **Buffer** & **rewind** ()  
*Rewinds this buffer.*
- virtual std::size\_t **remaining** () const  
*Returns the number of elements between the current position and the limit.*
- virtual bool **hasRemaining** () const  
*Tells whether there are any elements between the current position and the limit.*
- virtual bool **isReadOnly** () const =0  
*Tells whether or not this buffer is read-only.*

## Protected Attributes

- `std::size_t __position`
- `std::size_t __capacity`
- `std::size_t __limit`
- `std::size_t __mark`
- `bool __markSet`

### 6.138.1 Detailed Description

A container for data of a specific primitive type. A buffer is a linear, finite sequence of elements of a specific primitive type. Aside from its content, the essential properties of a buffer are its capacity, limit, and position:

A buffer's capacity is the number of elements it contains. The capacity of a buffer is never negative and never changes.

A buffer's limit is the index of the first element that should not be read or written. A buffer's limit is never negative and is never greater than its capacity.

A buffer's position is the index of the next element to be read or written. A buffer's position is never negative and is never greater than its limit.

There is one subclass of this class for each non-boolean primitive type.

Transferring data: Each subclass of this class defines two categories of get and put operations: \* Relative operations read or write one or more elements starting at the current position and then increment the position by the number of elements transferred. If the requested transfer exceeds the limit then a relative get operation throws a **BufferUnderflowException** (p.837) and a relative put operation throws a **BufferOverflowException** (p.834); in either case, no data is transferred. \* Absolute operations take an explicit element index and do not affect the position. Absolute get and put operations throw an **IndexOutOfBoundsException** if the index argument exceeds the limit.

Data may also, of course, be transferred in to or out of a buffer by the I/O operations of an appropriate channel, which are always relative to the current position.

Marking and resetting:

A buffer's mark is the index to which its position will be reset when the reset method is invoked. The mark is not always defined, but when it is defined it is never negative and is never greater than the position. If the mark is defined then it is discarded when the position or the limit is adjusted to a value smaller than the mark. If the mark is not defined then invoking the reset method causes an **InvalidMarkException** (p.1813) to be thrown.

Invariants:

The following invariant holds for the mark, position, limit, and capacity values:  $0 \leq \text{mark} \leq \text{position} \leq \text{limit} \leq \text{capacity}$

A newly-created buffer always has a position of zero and a mark that is undefined. The initial limit may be zero, or it may be some other value that depends upon the type of the buffer and the manner in which it is constructed. The initial content of a buffer is, in general, undefined.

Clearing, flipping, and rewinding:

In addition to methods for accessing the position, limit, and capacity values and for marking and resetting, this class also defines the following operations upon buffers:

**clear()** (p. 805) makes a buffer ready for a new sequence of channel-read or relative put operations: It sets the limit to the capacity and the position to zero.

**flip()** (p. 806) makes a buffer ready for a new sequence of channel-write or relative get operations: It sets the limit to the current position and then sets the position to zero.

**rewind()** (p. 808) makes a buffer ready for re-reading the data that it already contains: It leaves the limit unchanged and sets the position to zero.

Read-only buffers:

Every buffer is readable, but not every buffer is writable. The mutation methods of each buffer class are specified as optional operations that will throw a **ReadOnlyBufferException** (p. 2685) when invoked upon a read-only buffer. A read-only buffer does not allow its content to be changed, but its mark, position, and limit values are mutable. Whether or not a buffer is read-only may be determined by invoking its `isReadOnly` method.

Thread safety:

Buffers are not safe for use by multiple concurrent threads. If a buffer is to be used by more than one thread then access to the buffer should be controlled by appropriate synchronization.

Invocation chaining:

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained; for example, the sequence of statements

```
b.flip(); b.position(23); b.limit(42);
```

can be replaced by the single, more compact statement `b.flip().position(23).limit(42);`

## 6.138.2 Constructor & Destructor Documentation

**6.138.2.1** `decaf::nio::Buffer::Buffer (std::size_t capacity)`

**6.138.2.2** `decaf::nio::Buffer::Buffer (const Buffer & other)`

**6.138.2.3** `virtual decaf::nio::Buffer::~~Buffer ()` [inline, virtual]

## 6.138.3 Member Function Documentation

**6.138.3.1** `virtual std::size_t decaf::nio::Buffer::capacity () const` [inline, virtual]

**Returns:**

this buffer's capacity.

**6.138.3.2** `virtual Buffer& decaf::nio::Buffer::clear ()` [virtual]

Clears this buffer. The position is set to zero, the limit is set to the capacity, and the mark is discarded.

Invoke this method before using a sequence of channel-read or put operations to fill this buffer. For example:

```
buf.clear(); // Prepare buffer for reading in.read(buf); // Read data
```

This method does not actually erase the data in the buffer, but it is named as if it did because it will most often be used in situations in which that might as well be the case.

**Returns:**

a reference to this buffer.

### 6.138.3.3 virtual Buffer& decaf::nio::Buffer::flip () [virtual]

Flips this buffer. The limit is set to the current position and then the position is set to zero. If the mark is defined then it is discarded.

After a sequence of channel-read or put operations, invoke this method to prepare for a sequence of channel-write or relative get operations. For example:

```
buf.put(magic); // Prepend header
in.read(buf); // Read data into rest of buffer
buf.flip(); // Flip buffer
out.write(buf); // Write header + data to channel
```

This method is often used in conjunction with the compact method when transferring data from one place to another.

**Returns:**

a reference to this buffer.

### 6.138.3.4 virtual bool decaf::nio::Buffer::hasRemaining () const [inline, virtual]

Tells whether there are any elements between the current position and the limit.

**Returns:**

true if, and only if, there is at least one element remaining in this buffer

### 6.138.3.5 virtual bool decaf::nio::Buffer::isReadOnly () const [pure virtual]

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implemented in `decaf::internal::nio::ByteArrayBuffer` (p. 884), `decaf::internal::nio::CharArrayBuffer` (p. 995), `decaf::internal::nio::DoubleArrayBuffer` (p. 1553), `decaf::internal::nio::FloatArrayBuffer` (p. 1663), `decaf::internal::nio::IntArrayBuffer` (p. 1749), `decaf::internal::nio::LongArrayBuffer` (p. 2076), `decaf::internal::nio::ShortArrayBuffer` (p. 2920), and `decaf::nio::ByteBuffer` (p. 928).

### 6.138.3.6 virtual Buffer& decaf::nio::Buffer::limit (std::size\_t newLimit) throw (lang::exceptions::IllegalArgumentException) [virtual]

Sets this buffer's limit. If the position is larger than the new limit then it is set to the new limit. If the mark is defined and larger than the new limit then it is discarded.



**Parameters:**

*newLimit* - The new limit value; must be no larger than this buffer's capacity

**Returns:**

A reference to This buffer

**Exceptions:**

*IllegalArgumentException* if preconditions on the new pos don't hold.

**6.138.3.7** `virtual std::size_t decaf::nio::Buffer::limit () const [inline, virtual]`

**Returns:**

this buffers Limit

**6.138.3.8** `virtual Buffer& decaf::nio::Buffer::mark () [virtual]`

Sets this buffer's mark at its position.

**Returns:**

a reference to this buffer.

**6.138.3.9** `virtual Buffer& decaf::nio::Buffer::position (std::size_t newPosition)  
throw ( lang::exceptions::IllegalArgumentException ) [virtual]`

Sets this buffer's position. If the mark is defined and larger than the new position then it is discarded.

**Parameters:**

*newPosition* - the new postion in the buffer to set.

**Returns:**

A reference to This buffer

**Exceptions:**

*IllegalArgumentException* if preconditions on the new pos don't hold.

**6.138.3.10** `virtual std::size_t decaf::nio::Buffer::position () const [inline,  
virtual]`

**Returns:**

the current position in the buffer

**6.138.3.11** `virtual std::size_t decaf::nio::Buffer::remaining () const [inline, virtual]`

Returns the number of elements between the current position and the limit.

**Returns:**

The number of elements remaining in this buffer

**6.138.3.12** `virtual Buffer& decaf::nio::Buffer::reset () throw ( InvalidMarkException ) [virtual]`

Resets this buffer's position to the previously-marked position.

**Returns:**

a reference to this buffer.

**Exceptions:**

*InvalidMarkException* (p. 1813) - If the mark has not been set

**6.138.3.13** `virtual Buffer& decaf::nio::Buffer::rewind () [virtual]`

Rewinds this buffer. The position is set to zero and the mark is discarded.

Invoke this method before a sequence of channel-write or get operations, assuming that the limit has already been set appropriately. For example:

```
out.write(buf); // Write remaining data buf.rewind(); // Rewind buffer buf.get(array); // Copy data into array
```

**Returns:**

a reference to this buffer.

## 6.138.4 Field Documentation

**6.138.4.1** `std::size_t decaf::nio::Buffer::_capacity [protected]`

**6.138.4.2** `std::size_t decaf::nio::Buffer::_limit [protected]`

**6.138.4.3** `std::size_t decaf::nio::Buffer::_mark [protected]`

**6.138.4.4** `bool decaf::nio::Buffer::_markSet [protected]`

**6.138.4.5** `std::size_t decaf::nio::Buffer::_position [mutable, protected]`

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/Buffer.h`

## 6.139 decaf::io::BufferedInputStream Class Reference

A wrapper around another input stream that performs a buffered read, where it reads more data than it needs in order to reduce the number of io operations on the input stream.

#include <src/main/decaf/io/BufferedInputStream.h> Inheritance diagram for decaf::io::BufferedInputStream:

### Public Member Functions

- **BufferedInputStream** (**InputStream** \*stream, bool **own**=false)  
*Constructor.*
- **BufferedInputStream** (**InputStream** \*stream, std::size\_t bufferSize, bool **own**=false) throw ( lang::exceptions::IllegalArgumentException )  
*Constructor.*
- virtual ~**BufferedInputStream** ()
- virtual std::size\_t **available** () const throw ( IOException )  
*Indicates the number of bytes available.*
- virtual void **close** () throw ( IOException )  
*Close this **BufferedInputStream** (p. 809).*
- virtual int **read** () throw ( IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( IOException, lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Skips over and discards n bytes of data from this input stream.*
- virtual void **mark** (int readLimit)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( IOException )  
*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const  
*Determines if this input stream supports the mark and reset methods.*

### 6.139.1 Detailed Description

A wrapper around another input stream that performs a buffered read, where it reads more data than it needs in order to reduce the number of io operations on the input stream.

### 6.139.2 Constructor & Destructor Documentation

#### 6.139.2.1 `decaf::io::BufferedInputStream::BufferedInputStream (InputStream * stream, bool own = false)`

Constructor.

##### Parameters:

*stream* The target input stream.

*own* indicates if we own the stream object, defaults to false

#### 6.139.2.2 `decaf::io::BufferedInputStream::BufferedInputStream (InputStream * stream, std::size_t bufferSize, bool own = false) throw (lang::exceptions::IllegalArgumentException )`

Constructor.

##### Parameters:

*stream* the target input stream

*bufferSize* the size for the internal buffer.

*own* indicates if we own the stream object, defaults to false.

##### Exceptions:

*IllegalArgumentException* is the size is zero.

#### 6.139.2.3 `virtual decaf::io::BufferedInputStream::~~BufferedInputStream ()` [virtual]

### 6.139.3 Member Function Documentation

#### 6.139.3.1 `virtual std::size_t decaf::io::BufferedInputStream::available () const` `throw ( IOException )` [inline, virtual]

Indicates the number of bytes available.

##### Returns:

the sum of the amount of data available in the buffer and the data available on the target input stream.

Reimplemented from `decaf::io::FilterInputStream` (p.1633).

### 6.139.3.2 virtual void decaf::io::BufferedInputStream::close () throw ( IOException ) [virtual]

Close this **BufferedInputStream** (p. 809). This implementation closes the target stream and releases any resources associated with it.

#### Exceptions:

*IOException* (p. 1820) If an error occurs attempting to close this stream.

Reimplemented from **decaf::io::FilterInputStream** (p. 1633).

### 6.139.3.3 virtual void decaf::io::BufferedInputStream::mark (int readLimit) [inline, virtual]

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

#### Parameters:

*readLimit* max bytes read before marked position is invalid.

Reimplemented from **decaf::io::FilterInputStream** (p. 1634).

### 6.139.3.4 virtual bool decaf::io::BufferedInputStream::markSupported () const [inline, virtual]

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

#### Returns:

true if this stream instance supports marks

Reimplemented from **decaf::io::FilterInputStream** (p. 1634).

### 6.139.3.5 virtual int decaf::io::BufferedInputStream::read (unsigned char \* buffer, std::size\_t offset, std::size\_t bufferSize) throw ( IOException, lang::exceptions::NullPointerException ) [virtual]

Reads an array of bytes from the buffer. Blocks until the requested number of bytes are available.

#### Parameters:

*buffer* (out) the target buffer.

*offset* the position in the buffer to start reading from.

*bufferSize* the size of the output buffer.

#### Returns:

The number of bytes read or -1 if EOF

**Exceptions:**

***IOException*** (p. 1820) thrown if an error occurs.

***NullPointerException*** if buffer is NULL

Reimplemented from **decaf::io::FilterInputStream** (p.1635).

**6.139.3.6** `virtual int decaf::io::BufferedInputStream::read () throw ( IOException )`  
[virtual]

Reads a single byte from the buffer. Blocks until the data is available.

**Returns:**

The next byte.

**Exceptions:**

***IOException*** (p. 1820) thrown if an error occurs.

Reimplemented from **decaf::io::FilterInputStream** (p.1636).

**6.139.3.7** `virtual void decaf::io::BufferedInputStream::reset () throw ( IOException )`  
[inline, virtual]

Repositions this stream to the position at the time the mark method was last called on this input stream. If the method markSupported returns true, then: \* If the method mark has not been called since the stream was created, or the number of bytes read from the stream since mark was last called is larger than the argument to mark at that last call, then an **IOException** (p.1820) might be thrown. \* If such an **IOException** (p.1820) is not thrown, then the stream is reset to a state such that all the bytes read since the most recent call to mark (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the read method, followed by any bytes that otherwise would have been the next input data as of the time of the call to reset. If the method markSupported returns false, then: \* The call to reset may throw an **IOException** (p.1820). \* If an **IOException** (p.1820) is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the read method depend on the particular type of the input stream.

**Exceptions:**

***IOException*** (p. 1820)

Reimplemented from **decaf::io::FilterInputStream** (p.1636).

**6.139.3.8** `virtual std::size_t decaf::io::BufferedInputStream::skip`  
(std::size\_t *num*) throw ( io::IOException,  
lang::exceptions::UnsupportedOperationException )  
[virtual]

Skips over and discards n bytes of data from this input stream. The skip method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from

any of a number of conditions; reaching end of file before *n* bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If *n* is negative, no bytes are skipped.

The skip method of **InputStream** (p. 1740) creates a byte array and then repeatedly reads into it until *n* bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

**Parameters:**

*num* - the number of bytes to skip

**Returns:**

total bytes skipped

**Exceptions:**

*IOException* (p. 1820) if an error occurs

Reimplemented from **decaf::io::FilterInputStream** (p. 1637).

The documentation for this class was generated from the following file:

- src/main/decaf/io/**BufferedInputStream.h**

## 6.140 decaf::io::BufferedOutputStream Class Reference

Wrapper around another output stream that buffers output before writing to the target output stream.

#include <src/main/decaf/io/BufferedOutputStream.h> Inheritance diagram for decaf::io::BufferedOutputStream:

### Public Member Functions

- **BufferedOutputStream** (**OutputStream** \*stream, bool **own**=false)  
*Constructor.*
- **BufferedOutputStream** (**OutputStream** \*stream, std::size\_t bufferSize, bool **own**=false) throw ( lang::exceptions::IllegalArgumentException )  
*Constructor.*
- virtual ~**BufferedOutputStream** ()
- virtual void **write** (unsigned char c) throw ( IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** () throw ( IOException )  
*Invokes flush on the target output stream.*
- void **close** () throw ( io::IOException )  
*Invokes close on the target output stream.*

### 6.140.1 Detailed Description

Wrapper around another output stream that buffers output before writing to the target output stream.

### 6.140.2 Constructor & Destructor Documentation

#### 6.140.2.1 decaf::io::BufferedOutputStream::BufferedOutputStream (OutputStream \* stream, bool own = false)

Constructor.



**Parameters:**

- stream* The target output stream.
- own* Indicates if this class owns the stream pointer.

**6.140.2.2** `decaf::io::BufferedOutputStream::BufferedOutputStream (OutputStream * stream, std::size_t bufferSize, bool own = false) throw ( lang::exceptions::IllegalArgumentException )`

Constructor.

**Parameters:**

- stream* The target output stream.
- bufferSize* The size for the internal buffer.
- own* Indicates if this class owns the stream pointer.

**6.140.2.3** `virtual decaf::io::BufferedOutputStream::~~BufferedOutputStream () [virtual]`

**6.140.3 Member Function Documentation**

**6.140.3.1** `void decaf::io::BufferedOutputStream::close () throw ( io::IOException ) [virtual]`

Invokes close on the target output stream.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from `decaf::io::FilterOutputStream` (p. 1642).

**6.140.3.2** `virtual void decaf::io::BufferedOutputStream::flush () throw ( IOException ) [virtual]`

Invokes flush on the target output stream.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from `decaf::io::FilterOutputStream` (p. 1642).

**6.140.3.3** `virtual void decaf::io::BufferedOutputStream::write (const unsigned char * buffer, std::size_t offset, std::size_t len) throw ( IOException, lang::exceptions::NullPointerException ) [virtual]`

Writes an array of bytes to the output stream.

**Parameters:**

- buffer* The array of bytes to write.

*offset* the position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* thrown if buffer is Null.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1645).

**6.140.3.4** `virtual void decaf::io::BufferedOutputStream::write (const std::vector< unsigned char > & buffer) throw ( IOException ) [virtual]`

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1646).

**6.140.3.5** `virtual void decaf::io::BufferedOutputStream::write (unsigned char c) throw ( IOException ) [virtual]`

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1646).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/BufferedOutputStream.h`

## 6.141 decaf::net::BufferedSocket Class Reference

Buffered **Socket** (p.2964) class that wraps a **Socket** (p.2964) derived object and provides Buffered input and Output Streams to improve the efficiency of the reads and writes.

#include <src/main/decaf/net/BufferedSocket.h> Inheritance diagram for decaf::net::BufferedSocket:

### Public Member Functions

- **BufferedSocket** (**Socket** \*socket, int inputBufferSize=1000, int outputBufferSize=1000, bool own=true)  
*Constructs a new Buffered socket object.*
- virtual ~**BufferedSocket** ()
- virtual void **connect** (const char \*host, int port) throw ( **SocketException** )  
*Connects to the specified destination.*
- virtual void **close** () throw ( **decaf::io::IOException** )  
*Closes this object and deallocates the appropriate resources.*
- virtual bool **isConnected** () const  
*Indicates whether or not this socket is connected to a destination.*
- virtual **io::InputStream** \* **getInputStream** ()  
*Gets the InputStream for this socket.*
- virtual **io::OutputStream** \* **getOutputStream** ()  
*Gets the OutputStream for this socket.*
- virtual int **getSoLinger** () const throw ( **SocketException** )  
*Gets the linger time.*
- virtual void **setSoLinger** (int linger) throw ( **SocketException** )  
*Sets the linger time.*
- virtual bool **getKeepAlive** () const throw ( **SocketException** )  
*Gets the keep alive flag.*
- virtual void **setKeepAlive** (bool keepAlive) throw ( **SocketException** )  
*Enables/disables the keep alive flag.*
- virtual int **getReceiveBufferSize** () const throw ( **SocketException** )  
*Gets the receive buffer size.*
- virtual void **setReceiveBufferSize** (int size) throw ( **SocketException** )  
*Sets the receive buffer size.*

- virtual bool **getReuseAddress** () const throw ( SocketException )  
*Gets the reuse address flag.*
- virtual void **setReuseAddress** (bool reuse) throw ( SocketException )  
*Sets the reuse address flag.*
- virtual int **getSendBufferSize** () const throw ( SocketException )  
*Gets the send buffer size.*
- virtual void **setSendBufferSize** (int size) throw ( SocketException )  
*Sets the send buffer size.*
- virtual int **getSoTimeout** () const throw ( SocketException )  
*Gets the timeout for socket operations.*
- virtual void **setSoTimeout** (int timeout) throw ( SocketException )  
*Sets the timeout for socket operations.*

### 6.141.1 Detailed Description

Buffered **Socket** (p.2964) class that wraps a **Socket** (p.2964) derived object and provides Buffered input and Output Streams to improve the efficiency of the reads and writes.

### 6.141.2 Constructor & Destructor Documentation

- 6.141.2.1** `decaf::net::BufferedSocket::BufferedSocket (Socket * socket, int inputBufferSize = 1000, int outputBufferSize = 1000, bool own = true)`

Constructs a new Buffered socket object.

#### Parameters:

*socket* the socket to buffer  
*inputBufferSize* size of the input buffer  
*outputBufferSize* size of the output buffer  
*own* does this object own the passed socket

- 6.141.2.2** `virtual decaf::net::BufferedSocket::~~BufferedSocket ()` [virtual]

### 6.141.3 Member Function Documentation

- 6.141.3.1** `virtual void decaf::net::BufferedSocket::close () throw ( decaf::io::IOException )` [virtual]

Closes this object and deallocates the appropriate resources.

#### Exceptions:

*IOException*

Implements **decaf::io::Closeable** (p.1019).

**6.141.3.2 virtual void decaf::net::BufferedSocket::connect (const char \* *host*, int *port*) throw ( SocketException ) [virtual]**

Connects to the specified destination. Closes this socket if connected to another destination.

**Parameters:**

*host* The host of the server to connect to.

*port* The port of the server to connect to.

**Exceptions:**

*IOException* Thrown if a failure occurred in the connect.

Implements **decaf::net::Socket** (p. 2965).

**6.141.3.3 virtual io::InputStream\* decaf::net::BufferedSocket::getInputStream () [inline, virtual]**

Gets the InputStream for this socket.

**Returns:**

The InputStream for this socket. NULL if not connected.

Implements **decaf::net::Socket** (p. 2966).

**6.141.3.4 virtual bool decaf::net::BufferedSocket::getKeepAlive () const throw ( SocketException ) [inline, virtual]**

Gets the keep alive flag.

**Returns:**

True if keep alive is enabled.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2966).

References **decaf::net::Socket::getKeepAlive()**.

**6.141.3.5 virtual io::OutputStream\* decaf::net::BufferedSocket::getOutputStream () [inline, virtual]**

Gets the OutputStream for this socket.

**Returns:**

the OutputStream for this socket. NULL if not connected.

Implements **decaf::net::Socket** (p. 2966).

**6.141.3.6** `virtual int decaf::net::BufferedSocket::getReceiveBufferSize () const throw ( SocketException ) [inline, virtual]`

Gets the receive buffer size.

**Returns:**

the receive buffer size in bytes.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2966).

References `decaf::net::Socket::getReceiveBufferSize()`.

**6.141.3.7** `virtual bool decaf::net::BufferedSocket::getReuseAddress () const throw ( SocketException ) [inline, virtual]`

Gets the reuse address flag.

**Returns:**

True if the address can be reused.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).

References `decaf::net::Socket::getReuseAddress()`.

**6.141.3.8** `virtual int decaf::net::BufferedSocket::getSendBufferSize () const throw ( SocketException ) [inline, virtual]`

Gets the send buffer size.

**Returns:**

the size in bytes of the send buffer.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).

References `decaf::net::Socket::getSendBufferSize()`.

**6.141.3.9** `virtual int decaf::net::BufferedSocket::getSoLinger () const throw ( SocketException ) [inline, virtual]`

Gets the linger time.

**Returns:**

The linger time in seconds.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).

References **decaf::net::Socket::getSoLinger()**.

**6.141.3.10 virtual int decaf::net::BufferedSocket::getSoTimeout () const throw ( SocketException ) [inline, virtual]**

Gets the timeout for socket operations.

**Returns:**

The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to retrieve the information.

Implements **decaf::net::Socket** (p. 2967).

References **decaf::net::Socket::getSoTimeout()**.

**6.141.3.11 virtual bool decaf::net::BufferedSocket::isConnected () const [inline, virtual]**

Indicates whether or not this socket is connected to a destination.

**Returns:**

true if connected

Implements **decaf::net::Socket** (p. 2968).

References **decaf::net::Socket::isConnected()**.

**6.141.3.12 virtual void decaf::net::BufferedSocket::setKeepAlive (bool *keepAlive*) throw ( SocketException ) [inline, virtual]**

Enables/disables the keep alive flag.

**Parameters:**

*keepAlive* If true, enables the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2968).

References **decaf::net::Socket::setKeepAlive()**.

**6.141.3.13** `virtual void decaf::net::BufferedSocket::setReceiveBufferSize (int size)  
throw ( SocketException )` [inline, virtual]

Sets the receive buffer size.

**Parameters:**

*size* Number of bytes to set the receive buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2968).

References `decaf::net::Socket::setReceiveBufferSize()`.

**6.141.3.14** `virtual void decaf::net::BufferedSocket::setReuseAddress (bool reuse)  
throw ( SocketException )` [inline, virtual]

Sets the reuse address flag.

**Parameters:**

*reuse* If true, sets the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2969).

References `decaf::net::Socket::setReuseAddress()`.

**6.141.3.15** `virtual void decaf::net::BufferedSocket::setSendBufferSize (int size)  
throw ( SocketException )` [inline, virtual]

Sets the send buffer size.

**Parameters:**

*size* The number of bytes to set the send buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2969).

References `decaf::net::Socket::setSendBufferSize()`.

**6.141.3.16** `virtual void decaf::net::BufferedSocket::setSoLinger (int linger) throw ( SocketException )` [inline, virtual]

Sets the linger time.



**Parameters:**

*linger* The linger time in seconds. If 0, linger is off.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2969).

References **decaf::net::Socket::setSoLinger()**.

**6.141.3.17 virtual void decaf::net::BufferedSocket::setSoTimeout (int *timeout*)  
throw ( SocketException ) [inline, virtual]**

Sets the timeout for socket operations.

**Parameters:**

*timeout* The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to set the information.

Implements **decaf::net::Socket** (p. 2969).

References **decaf::net::Socket::setSoTimeout()**.

The documentation for this class was generated from the following file:

- `src/main/decaf/net/BufferedSocket.h`

## 6.142 decaf::internal::nio::BufferFactory Class Reference

Factory class used by static methods in the **decaf::nio** (p.128) package to create the various default version of the NIO interfaces.

```
#include <src/main/decaf/internal/nio/BufferFactory.h>
```

### Public Member Functions

- virtual **~BufferFactory** ()

### Static Public Member Functions

- static **decaf::nio::ByteBuffer \* createByteBuffer** (std::size\_t capacity)  
*Allocates a new byte buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::ByteBuffer \* createByteBuffer** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new ByteBuffer.*
- static **decaf::nio::ByteBuffer \* createByteBuffer** (std::vector< unsigned char > &buffer)  
*Wraps the passed STL Byte Vector in a ByteBuffer.*
- static **decaf::nio::CharBuffer \* createCharBuffer** (std::size\_t capacity)  
*Allocates a new char buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::CharBuffer \* createCharBuffer** (char \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new CharBuffer.*
- static **decaf::nio::CharBuffer \* createCharBuffer** (std::vector< char > &buffer)  
*Wraps the passed STL Byte Vector in a CharBuffer.*
- static **decaf::nio::DoubleBuffer \* createDoubleBuffer** (std::size\_t capacity)  
*Allocates a new double buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::DoubleBuffer \* createDoubleBuffer** (double \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new DoubleBuffer.*
- static **decaf::nio::DoubleBuffer \* createDoubleBuffer** (std::vector< double > &buffer)  
*Wraps the passed STL Double Vector in a DoubleBuffer.*
- static **decaf::nio::FloatBuffer \* createFloatBuffer** (std::size\_t capacity)  
*Allocates a new float buffer whose position will be zero its limit will be its capacity and its mark is not set.*

- static **decaf::nio::FloatBuffer \* createFloatBuffer** (float \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new FloatBuffer.*
- static **decaf::nio::FloatBuffer \* createFloatBuffer** (std::vector< float > &buffer)  
*Wraps the passed STL Float Vector in a FloatBuffer.*
- static **decaf::nio::LongBuffer \* createLongBuffer** (std::size\_t capacity)  
*Allocates a new long long buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::LongBuffer \* createLongBuffer** (long long \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new LongBuffer.*
- static **decaf::nio::LongBuffer \* createLongBuffer** (std::vector< long long > &buffer)  
*Wraps the passed STL Long Vector in a LongBuffer.*
- static **decaf::nio::IntBuffer \* createIntBuffer** (std::size\_t capacity)  
*Allocates a new int buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::IntBuffer \* createIntBuffer** (int \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new IntBuffer.*
- static **decaf::nio::IntBuffer \* createIntBuffer** (std::vector< int > &buffer)  
*Wraps the passed STL int Vector in a IntBuffer.*
- static **decaf::nio::ShortBuffer \* createShortBuffer** (std::size\_t capacity)  
*Allocates a new short buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **decaf::nio::ShortBuffer \* createShortBuffer** (short \*buffer, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new ShortBuffer.*
- static **decaf::nio::ShortBuffer \* createShortBuffer** (std::vector< short > &buffer)  
*Wraps the passed STL Short Vector in a ShortBuffer.*

### 6.142.1 Detailed Description

Factory class used by static methods in the **decaf::nio** (p.128) package to create the various default version of the NIO interfaces.

## 6.142.2 Constructor & Destructor Documentation

**6.142.2.1** `virtual decaf::internal::nio::BufferFactory::~~BufferFactory () [inline, virtual]`

## 6.142.3 Member Function Documentation

**6.142.3.1** `static decaf::nio::ByteBuffer* decaf::internal::nio::BufferFactory::createByteBuffer (std::vector< unsigned char > & buffer) [static]`

Wraps the passed STL Byte Vector in a ByteBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

### Parameters:

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

### Returns:

a new ByteBuffer that is backed by *buffer*, caller owns.

**6.142.3.2** `static decaf::nio::ByteBuffer* decaf::internal::nio::BufferFactory::createByteBuffer (unsigned char * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new ByteBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

### Parameters:

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

### Returns:

a new ByteBuffer that is backed by *buffer*, caller owns.

**6.142.3.3** `static decaf::nio::ByteBuffer* decaf::internal::nio::BufferFactory::createByteBuffer (std::size_t capacity) [static]`

Allocates a new byte buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated ByteBuffer which the caller owns.

#### 6.142.3.4 static decaf::nio::CharBuffer\* decaf::internal::nio::BufferFactory::createCharBuffer (std::vector< char > & *buffer*) [static]

Wraps the passed STL Byte Vector in a CharBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new CharBuffer that is backed by *buffer*, caller owns.

#### 6.142.3.5 static decaf::nio::CharBuffer\* decaf::internal::nio::BufferFactory::createCharBuffer (char \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( lang::exceptions::NullPointerException ) [static]

Wraps the passed buffer with a new CharBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new CharBuffer that is backed by *buffer*, caller owns.

#### 6.142.3.6 static decaf::nio::CharBuffer\* decaf::internal::nio::BufferFactory::createCharBuffer (std::size\_t *capacity*) [static]

Allocates a new char buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated CharBuffer which the caller owns.

**6.142.3.7** `static decaf::nio::DoubleBuffer* decaf::internal::nio::BufferFactory::createDoubleBuffer (std::vector< double > & buffer) [static]`

Wraps the passed STL Double Vector in a DoubleBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.8** `static decaf::nio::DoubleBuffer* decaf::internal::nio::BufferFactory::createDoubleBuffer (double * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new DoubleBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.9** `static decaf::nio::DoubleBuffer* decaf::internal::nio::BufferFactory::createDoubleBuffer (std::size_t capacity) [static]`

Allocates a new double buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated DoubleBuffer which the caller owns.

**6.142.3.10** `static decaf::nio::FloatBuffer* decaf::internal::nio::BufferFactory::createFloatBuffer (std::vector< float > & buffer) [static]`

Wraps the passed STL Float Vector in a FloatBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.11** `static decaf::nio::FloatBuffer* decaf::internal::nio::BufferFactory::createFloatBuffer (float * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new FloatBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.12** `static decaf::nio::FloatBuffer* decaf::internal::nio::BufferFactory::createFloatBuffer (std::size_t capacity) [static]`

Allocates a new float buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated DoubleBuffer which the caller owns.

**6.142.3.13** `static decaf::nio::IntBuffer* decaf::internal::nio::BufferFactory::createIntBuffer (std::vector< int > & buffer) [static]`

Wraps the passed STL int Vector in a IntBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.14** `static decaf::nio::IntBuffer* decaf::internal::nio::BufferFactory::createIntBuffer (int * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new IntBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.15** `static decaf::nio::IntBuffer* decaf::internal::nio::BufferFactory::createIntBuffer (std::size_t capacity) [static]`

Allocates a new int buffer whose position will be zero its limit will be its capacity and its mark is not set.



**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated DoubleBuffer which the caller owns.

**6.142.3.16** `static decaf::nio::LongBuffer* decaf::internal::nio::BufferFactory::createLongBuffer (std::vector< long long > & buffer) [static]`

Wraps the passed STL Long Vector in a LongBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.17** `static decaf::nio::LongBuffer* decaf::internal::nio::BufferFactory::createLongBuffer (long long * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new LongBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.18** `static decaf::nio::LongBuffer* decaf::internal::nio::BufferFactory::createLongBuffer (std::size_t capacity) [static]`

Allocates a new long long buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated DoubleBuffer which the caller owns.

**6.142.3.19** `static decaf::nio::ShortBuffer* decaf::internal::nio::BufferFactory::createShortBuffer (std::vector< short > & buffer) [static]`

Wraps the passed STL Short Vector in a ShortBuffer. The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.20** `static decaf::nio::ShortBuffer* decaf::internal::nio::BufferFactory::createShortBuffer (short * buffer, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new ShortBuffer. The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new DoubleBuffer that is backed by *buffer*, caller owns.

**6.142.3.21** `static decaf::nio::ShortBuffer* decaf::internal::nio::BufferFactory::createShortBuffer (std::size_t capacity) [static]`

Allocates a new short buffer whose position will be zero its limit will be its capacity and its mark is not set.

**Parameters:**

*capacity* - the internal buffer's capacity.

**Returns:**

a newly allocated DoubleBuffer which the caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/BufferFactory.h`

## 6.143 decaf::nio::BufferOverflowException Class Reference

#include <src/main/decaf/nio/BufferOverflowException.h> Inheritance diagram for decaf::nio::BufferOverflowException:

### Public Member Functions

- **BufferOverflowException** () throw ()  
*Default Constructor.*
- **BufferOverflowException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **BufferOverflowException** (const BufferOverflowException &ex) throw ()  
*Copy Constructor.*
- **BufferOverflowException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **BufferOverflowException** (const std::exception \*cause) throw ()  
*Constructor.*
- **BufferOverflowException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **BufferOverflowException** \* clone () const  
*Clones this exception.*
- virtual ~**BufferOverflowException** () throw ()

### 6.143.1 Constructor & Destructor Documentation

#### 6.143.1.1 decaf::nio::BufferOverflowException::BufferOverflowException () throw () [inline]

Default Constructor.

#### 6.143.1.2 decaf::nio::BufferOverflowException::BufferOverflowException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy

### 6.143.1.3 decaf::nio::BufferOverflowException::BufferOverflowException (const BufferOverflowException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy, which is an instance of this type

### 6.143.1.4 decaf::nio::BufferOverflowException::BufferOverflowException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.143.1.5 decaf::nio::BufferOverflowException::BufferOverflowException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.143.1.6 decaf::nio::BufferOverflowException::BufferOverflowException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor.

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.143.1.7** `virtual decaf::nio::BufferOverflowException::~~BufferOverflowException  
() throw () [inline, virtual]`

## **6.143.2 Member Function Documentation**

**6.143.2.1** `virtual BufferOverflowException* de-  
caf::nio::BufferOverflowException::clone () const [inline,  
virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/BufferOverflowException.h`

## 6.144 decaf::nio::BufferUnderflowException Class Reference

#include <src/main/decaf/nio/BufferUnderflowException.h> Inheritance diagram for decaf::nio::BufferUnderflowException:

### Public Member Functions

- **BufferUnderflowException** () throw ()  
*Default Constructor.*
- **BufferUnderflowException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **BufferUnderflowException** (const BufferUnderflowException &ex) throw ()  
*Copy Constructor.*
- **BufferUnderflowException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **BufferUnderflowException** (const std::exception \*cause) throw ()  
*Constructor.*
- **BufferUnderflowException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **BufferUnderflowException** \* clone () const  
*Clones this exception.*
- virtual ~**BufferUnderflowException** () throw ()

### 6.144.1 Constructor & Destructor Documentation

#### 6.144.1.1 decaf::nio::BufferUnderflowException::BufferUnderflowException () throw () [inline]

Default Constructor.

#### 6.144.1.2 decaf::nio::BufferUnderflowException::BufferUnderflowException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy

#### 6.144.1.3 `decaf::nio::BufferUnderflowException::BufferUnderflowException (const BufferUnderflowException & ex) throw ()` [inline]

Copy Constructor.

##### Parameters:

*ex* the exception to copy, which is an instance of this type

#### 6.144.1.4 `decaf::nio::BufferUnderflowException::BufferUnderflowException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

##### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

#### 6.144.1.5 `decaf::nio::BufferUnderflowException::BufferUnderflowException (const std::exception * cause) throw ()` [inline]

Constructor.

##### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

#### 6.144.1.6 `decaf::nio::BufferUnderflowException::BufferUnderflowException (const char * file, const int lineNumber, const char * msg, ...) throw ()` [inline]

Constructor.

##### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message



**6.144.1.7**    **virtual**  
          **decaf::nio::BufferUnderflowException::~~BufferUnderflowException ()**  
          **throw ()**    [inline, virtual]

## 6.144.2 Member Function Documentation

**6.144.2.1**    **virtual BufferUnderflowException\* de-**  
          **caf::nio::BufferUnderflowException::clone () const**  
          [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/BufferUnderflowException.h`

## 6.145 decaf::lang::Byte Class Reference

#include <src/main/decaf/lang/Byte.h> Inheritance diagram for decaf::lang::Byte:

### Public Member Functions

- **Byte** (unsigned char value)
- **Byte** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual ~**Byte** ()
- virtual int **compareTo** (const **Byte** &c) const  
*Compares this **Byte** (p. 840) instance with another.*
- virtual bool **operator==** (const **Byte** &c) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Byte** &c) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const unsigned char &c) const  
*Compares this **Byte** (p. 840) instance with a char type.*
- virtual bool **operator==** (const unsigned char &c) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const unsigned char &c) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- bool **equals** (const **Byte** &c) const
- bool **equals** (const unsigned char &c) const
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*

## Static Public Member Functions

- static std::string **toString** (unsigned char value)
- static **Byte decode** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Decodes a String into a **Byte** (p. 840).*
- static unsigned char **parseByte** (const std::string &s, int radix) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed unsigned char in the radix specified by the second argument.*
- static unsigned char **parseByte** (const std::string &s) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed decimal unsigned char.*
- static **Byte valueOf** (unsigned char value)  
*Returns a **Character** (p. 982) instance representing the specified char value.*
- static **Byte valueOf** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Returns a **Byte** (p. 840) object holding the value given by the specified std::string.*
- static **Byte valueOf** (const std::string &value, int radix) throw ( exceptions::NumberFormatException )  
*Returns a **Byte** (p. 840) object holding the value extracted from the specified std::string when parsed with the radix given by the second argument.*

## Static Public Attributes

- static const unsigned char **MIN\_VALUE** = 0x7F  
*The minimum value that a unsigned char can take on.*
- static const unsigned char **MAX\_VALUE** = 0x80  
*The maximum value that a unsigned char can take on.*
- static const int **SIZE** = 8  
*The size of the primitive character in bits.*

### 6.145.1 Constructor & Destructor Documentation

#### 6.145.1.1 decaf::lang::Byte::Byte (unsigned char *value*)

##### Parameters:

*value* - the primitive value to wrap

#### 6.145.1.2 `decaf::lang::Byte::Byte (const std::string & value) throw (exceptions::NumberFormatException )`

##### Parameters:

*value* - the string to convert to an unsigned char

##### Exceptions:

*NumberFormatException*

#### 6.145.1.3 `virtual decaf::lang::Byte::~~Byte () [inline, virtual]`

### 6.145.2 Member Function Documentation

#### 6.145.2.1 `virtual unsigned char decaf::lang::Byte::byteValue () const [inline, virtual]`

Answers the byte value which the receiver represents.

##### Returns:

byte the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2432).

#### 6.145.2.2 `virtual int decaf::lang::Byte::compareTo (const unsigned char & c) const [inline, virtual]`

Compares this **Byte** (p. 840) instance with a char type.

##### Parameters:

*c* - the char instance to be compared

##### Returns:

zero if this object represents the same char value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< unsigned char >` (p. 1083).

#### 6.145.2.3 `virtual int decaf::lang::Byte::compareTo (const Byte & c) const [inline, virtual]`

Compares this **Byte** (p. 840) instance with another.

##### Parameters:

*c* - the **Byte** (p. 840) instance to be compared

**Returns:**

zero if this object represents the same char value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable**< **Byte** > (p.1083).

**6.145.2.4 static Byte decaf::lang::Byte::decode (const std::string & value) throw ( exceptions::NumberFormatException ) [static]**

Decodes a String into a **Byte** (p.840). Accepts decimal, hexadecimal, and octal numbers given by the following grammar:

The sequence of characters following an (optional) negative sign and/or radix specifier ("0x", "0X", "#", or leading zero) is parsed as by the **Byte::parseByte** (p.846) method with the indicated radix (10, 16, or 8). This sequence of characters must represent a positive value or a **NumberFormatException** will be thrown. The result is negated if first character of the specified String is the minus sign. No whitespace characters are permitted in the string.

**Parameters:**

*value* - The string to decode

**Returns:**

a **Byte** (p.840) object containing the decoded value

**Exceptions:**

*NumberFormatException* if the string is not formatted correctly.

**6.145.2.5 virtual double decaf::lang::Byte::doubleValue () const [inline, virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p.2433).

**6.145.2.6 bool decaf::lang::Byte::equals (const unsigned char & c) const [inline, virtual]****Returns:**

true if the two Bytes have the same value.

Implements **decaf::lang::Comparable**< **unsigned char** > (p.1084).

**6.145.2.7** `bool decaf::lang::Byte::equals (const Byte & c) const [inline, virtual]`

**Returns:**

true if the two **Byte** (p. 840) Objects have the same value.

Implements **decaf::lang::Comparable**< **Byte** > (p.1084).

**6.145.2.8** `virtual float decaf::lang::Byte::floatValue () const [inline, virtual]`

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.145.2.9** `virtual int decaf::lang::Byte::intValue () const [inline, virtual]`

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.145.2.10** `virtual long long decaf::lang::Byte::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.145.2.11** `virtual bool decaf::lang::Byte::operator< (const unsigned char & c) const [inline, virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable**< **unsigned char** > (p. 1084).

**6.145.2.12 virtual bool decaf::lang::Byte::operator< (const Byte & c) const**  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Byte >** (p.1084).

**6.145.2.13 virtual bool decaf::lang::Byte::operator== (const unsigned char & c)**  
const [inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< unsigned char >** (p.1085).

**6.145.2.14 virtual bool decaf::lang::Byte::operator== (const Byte & c) const**  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Byte >** (p.1085).

**6.145.2.15 static unsigned char decaf::lang::Byte::parseByte (const std::string & s)**  
throw ( exceptions::NumberFormatException ) [static]

Parses the string argument as a signed decimal unsigned char. The characters in the string must all be decimal digits, except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting unsigned char value is returned, exactly as if the argument and the radix 10 were given as arguments to the parseByte( const std::string, int ) method.

**Parameters:**

*s* - String to convert to a unsigned char

**Returns:**

the converted unsigned char value

**Exceptions:**

*NumberFormatException* if the string is not a unsigned char.

**6.145.2.16** `static unsigned char decaf::lang::Byte::parseByte (const std::string & s, int radix) throw ( exceptions::NumberFormatException ) [static]`

Parses the string argument as a signed unsigned char in the radix specified by the second argument. The characters in the string must all be digits, of the specified radix (as determined by whether **Character.digit(char, int)** (p. 985) returns a nonnegative value) except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting byte value is returned.

An exception of type *NumberFormatException* is thrown if any of the following situations occurs:  
\* The first argument is null or is a string of length zero. \* The radix is either smaller than **Character.MIN\_RADIX** (p. 989) or larger than **Character::MAX\_RADIX** (p. 989). \* Any character of the string is not a digit of the specified radix, except that the first character may be a minus sign '-' provided that the string is longer than length 1. \* The value represented by the string is not a value of type unsigned char.

**Parameters:**

*s* - the String containing the unsigned char to be parsed  
*radix* - the radix to be used while parsing s

**Returns:**

the unsigned char represented by the string argument in the specified radix.

**Exceptions:**

*NumberFormatException* - If String does not contain a parsable unsigned char.

**6.145.2.17** `virtual short decaf::lang::Byte::shortValue () const [inline, virtual]`

Answers the short value which the receiver represents.

**Returns:**

short the value of the receiver.

Reimplemented from **decaf::lang::Number** (p. 2434).

**6.145.2.18** `static std::string decaf::lang::Byte::toString (unsigned char value) [static]`

**Returns:**

a string representing the primitive value as Base 10



**6.145.2.19** `std::string decaf::lang::Byte::toString () const`**Returns:**

this **Byte** (p. 840) Object as a String Representation

**6.145.2.20** `static Byte decaf::lang::Byte::valueOf (const std::string & value, int radix) throw ( exceptions::NumberFormatException ) [static]`

Returns a **Byte** (p. 840) object holding the value extracted from the specified `std::string` when parsed with the radix given by the second argument. The first argument is interpreted as representing a signed unsigned char in the radix specified by the second argument, exactly as if the argument were given to the `parseByte( std::string, int )` method. The result is a **Byte** (p. 840) object that represents the unsigned char value specified by the string.

**Parameters:**

*value* - `std::string` to parse as base ( radix )

*radix* - base of the string to parse.

**Returns:**

new **Byte** (p. 840) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a valid unsigned char.

**6.145.2.21** `static Byte decaf::lang::Byte::valueOf (const std::string & value) throw ( exceptions::NumberFormatException ) [static]`

Returns a **Byte** (p. 840) object holding the value given by the specified `std::string`. The argument is interpreted as representing a signed decimal unsigned char, exactly as if the argument were given to the `parseByte( std::string )` method. The result is a **Byte** (p. 840) object that represents the unsigned char value specified by the string.

**Parameters:**

*value* - `std::string` to parse as base 10

**Returns:**

new **Byte** (p. 840) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a decimal unsigned char.

**6.145.2.22** `static Byte decaf::lang::Byte::valueOf (unsigned char value) [inline, static]`

Returns a **Character** (p. 982) instance representing the specified char value.

**Parameters:**

*value* - the primitive char to wrap.

**Returns:**

a new **Character** (p. 982) instance that wraps this value.

### 6.145.3 Field Documentation

**6.145.3.1** `const unsigned char decaf::lang::Byte::MAX_VALUE = 0x80` [static]

The maximum value that a unsigned char can take on.

**6.145.3.2** `const unsigned char decaf::lang::Byte::MIN_VALUE = 0x7F` [static]

The minimum value that a unsigned char can take on.

**6.145.3.3** `const int decaf::lang::Byte::SIZE = 8` [static]

The size of the primitive charactor in bits.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Byte.h`

## 6.146 decaf::internal::util::ByteArrayAdapter Class Reference

This class adapts primitive type arrays to a base byte array so that the classes can inter-operate on the same base byte array without copying data.

#include <src/main/decaf/internal/util/ByteArrayAdapter.h> Inheritance diagram for decaf::internal::util::ByteArrayAdapter:

### Data Structures

- union **Array**

### Public Member Functions

- **ByteArrayAdapter** (std::size\_t capacity)  
*Creates a byte array object that is allocated internally and is then owned and deleted when this object is deleted.*
- **ByteArrayAdapter** (unsigned char \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (char \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (double \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (float \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (long long \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (int \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayAdapter** (short \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- virtual ~**ByteArrayAdapter** ()

- virtual std::size\_t **getCapacity** () const  
*Gets the capacity of the underlying array.*
- virtual std::size\_t **getCharCapacity** () const  
*Gets the capacity of the underlying array as if it contains chars.*
- virtual std::size\_t **getDoubleCapacity** () const  
*Gets the capacity of the underlying array as if it contains doubles.*
- virtual std::size\_t **getFloatCapacity** () const  
*Gets the capacity of the underlying array as if it contains doubles.*
- virtual std::size\_t **getLongCapacity** () const  
*Gets the capacity of the underlying array as if it contains doubles.*
- virtual std::size\_t **getIntCapacity** () const  
*Gets the capacity of the underlying array as if it contains ints.*
- virtual std::size\_t **getShortCapacity** () const  
*Gets the capacity of the underlying array as if it contains shorts.*
- virtual unsigned char \* **getByteArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual char \* **getCharArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual short \* **getShortArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual int \* **getIntArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual long long \* **getLongArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual double \* **getDoubleArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual float \* **getFloatArray** ()  
*Gets the pointer to the array we are wrapping.*
- virtual void **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) const throw ( decaf::lang::exceptions::NullPointerException, decaf::nio::BufferUnderflowException )  
*Reads from the Byte array starting at the specified offset and reading the specified length.*
- virtual void **write** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( decaf::lang::exceptions::NullPointerException, decaf::nio::BufferOverflowException )  
*Writes from the Byte array given, starting at the specified offset and writing the specified amount of data into this objects internal array.*

- virtual void **resize** (std::size\_t capacity) throw ( lang::exceptions::InvalidStateException )  
*Resizes the underlying array to the new given capacity, preserving all the Data that was previously in the array, unless the resize is smaller than the current size in which case only the data that will fit into the new array is preserved.*
- virtual void **clear** ()  
*Clear all data from that Array, setting the underlying bytes to zero.*
- unsigned char & **operator[]** (std::size\_t index) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Allows the **ByteArrayAdapter** (p. 849) to be indexed as a standard array.*
- const unsigned char & **operator[]** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )
- virtual unsigned char **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- virtual char **getChar** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads one byte at the given index and returns it.*
- virtual double **getDouble** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given index and returns it.*
- virtual double **getDoubleAt** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given byte index and returns it.*
- virtual float **getFloat** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given index and returns it.*
- virtual float **getFloatAt** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given byte index and returns it.*
- virtual long long **getLong** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given index and returns it.*
- virtual long long **getLongAt** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given byte index and returns it.*
- virtual int **getInt** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given index and returns it.*

- virtual int **getIntAt** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)  
*Reads four bytes at the given byte index and returns it.*
- virtual short **getShort** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)  
*Reads two bytes at the given index and returns it.*
- virtual short **getShortAt** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)  
*Reads two bytes at the given byte index and returns it.*
- virtual **ByteArrayAdapter** & **put** (std::size\_t index, unsigned char value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes the given byte into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putChar** (std::size\_t index, char value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes one byte containing the given value, into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putDouble** (std::size\_t index, double value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes eight bytes containing the given value, into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putDoubleAt** (std::size\_t index, double value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes eight bytes containing the given value, into this buffer at the given byte index.*
- virtual **ByteArrayAdapter** & **putFloat** (std::size\_t index, float value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes four bytes containing the given value, into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putFloatAt** (std::size\_t index, float value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes four bytes containing the given value, into this buffer at the given byte index.*
- virtual **ByteArrayAdapter** & **putLong** (std::size\_t index, long long value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes eight bytes containing the given value, into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putLongAt** (std::size\_t index, long long value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes eight bytes containing the given value, into this buffer at the given byte index.*
- virtual **ByteArrayAdapter** & **putInt** (std::size\_t index, int value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes four bytes containing the given value, into this buffer at the given index.*
- virtual **ByteArrayAdapter** & **putIntAt** (std::size\_t index, int value) throw (lang::exceptions::IndexOutOfBoundsException)  
*Writes four bytes containing the given value, into this buffer at the given byte index.*

- virtual **ByteArrayAdapter** & **putShort** (std::size\_t index, short value) throw (lang::exceptions::IndexOutOfBoundsException )

*Writes two bytes containing the given value, into this buffer at the given index.*

- virtual **ByteArrayAdapter** & **putShortAt** (std::size\_t index, short value) throw (lang::exceptions::IndexOutOfBoundsException )

*Writes two bytes containing the given value, into this buffer at the given byte index.*

### 6.146.1 Detailed Description

This class adapts primitive type arrays to a base byte array so that the classes can inter-operate on the same base byte array without copying data. All the array types are mapped down to a byte array and methods are supplied for accessing the data in any of the primitive type forms.

Methods in this class that do not return a specific value return a reference to this object so that calls can be chained.

### 6.146.2 Constructor & Destructor Documentation

#### 6.146.2.1 decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (std::size\_t capacity)

Creates a byte array object that is allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size of the array, this is the limit we read and write to.

#### 6.146.2.2 decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (unsigned char \* array, std::size\_t capacity, bool own = false) throw (lang::exceptions::NullPointerException )

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

##### Exceptions:

*NullPointerException* if buffer is NULL

### 6.146.2.3 `decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (char * array, std::size_t capacity, bool own = false) throw (lang::exceptions::NullPointerException )`

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

### 6.146.2.4 `decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (double * array, std::size_t capacity, bool own = false) throw (lang::exceptions::NullPointerException )`

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

### 6.146.2.5 `decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (float * array, std::size_t capacity, bool own = false) throw (lang::exceptions::NullPointerException )`

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL



#### 6.146.2.6 decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (long \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

##### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.146.2.7 decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (int \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

##### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.146.2.8 decaf::internal::util::ByteArrayAdapter::ByteArrayAdapter (short \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

##### Exceptions:

*NullPointerException* if buffer is NULL

**6.146.2.9** `virtual decaf::internal::util::ByteArrayAdapter::~~ByteArrayAdapter ()`  
[virtual]

### 6.146.3 Member Function Documentation

**6.146.3.1** `virtual void decaf::internal::util::ByteArrayAdapter::clear ()` [virtual]

Clear all data from that Array, setting the underlying bytes to zero.

**6.146.3.2** `virtual unsigned char decaf::internal::util::ByteArrayAdapter::get`  
`(std::size_t index) const throw (`  
`lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Absolute get method. Reads the byte at the given index.

#### Parameters:

*index* - the index in the Buffer where the byte is to be read

#### Returns:

the byte that is located at the given index

#### Exceptions:

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

**6.146.3.3** `virtual unsigned char* de-`  
`caf::internal::util::ByteArrayAdapter::getByteArray ()`  
[inline, virtual]

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p. 849) objects that point to this array.

#### Returns:

an unsigned char\* pointer to the array this object wraps.

**6.146.3.4** `virtual std::size_t decaf::internal::util::ByteArrayAdapter::getCapacity ()`  
`const` [inline, virtual]

Gets the capacity of the underlying array.

#### Returns:

the size the array.

**6.146.3.5** `virtual char decaf::internal::util::ByteArrayAdapter::getChar (std::size_t`  
`index) const throw ( lang::exceptions::IndexOutOfBoundsException )`  
[inline, virtual]

Reads one byte at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the byte is to be read

**Returns:**

the char at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

**6.146.3.6 virtual char\* decaf::internal::util::ByteArrayAdapter::getCharArray ()**  
[inline, virtual]

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p.849) objects that point to this array.

**Returns:**

an char\* pointer to the array this object wraps.

**6.146.3.7 virtual std::size\_t decaf::internal::util::ByteArrayAdapter::getCharCapacity ()**  
const [inline, virtual]

Gets the capacity of the underlying array as if it contains chars.

**Returns:**

the size the array.

**6.146.3.8 virtual double decaf::internal::util::ByteArrayAdapter::getDouble**  
(std::size\_t *index*) const throw (  
lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Reads eight bytes at the given index and returns it. The index is a relative to the size of the type to be read, in otherwords when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the double at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.9** `virtual double* decaf::internal::util::ByteArrayAdapter::getDoubleArray  
( ) [inline, virtual]`

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p.849) objects that point to this array.

**Returns:**

an double\* pointer to the array this object wraps.

**6.146.3.10** `virtual double decaf::internal::util::ByteArrayAdapter::getDoubleAt  
(std::size_t index) const throw (  
lang::exceptions::IndexOutOfBoundsException )  
[virtual]`

Reads eight bytes at the given byte index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the double at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.11** `virtual std::size_t de-  
caf::internal::util::ByteArrayAdapter::getDoubleCapacity  
( ) const [inline, virtual]`

Gets the capacity of the underlying array as if it contains doubles.

**Returns:**

the size the array.

**6.146.3.12** `virtual float decaf::internal::util::ByteArrayAdapter::getFloat  
(std::size_t index) const throw (  
lang::exceptions::IndexOutOfBoundsException )  
[virtual]`

Reads four bytes at the given index and returns it. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the float at the given index in the buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.13 virtual float\* decaf::internal::util::ByteArrayAdapter::getFloatArray ()**  
[inline, virtual]

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p.849) objects that point to this array.

**Returns:**

an float\* pointer to the array this object wraps.

**6.146.3.14 virtual float decaf::internal::util::ByteArrayAdapter::getFloatAt**  
(std::size\_t *index*) const throw (  
lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Reads four bytes at the given byte index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the float at the given index in the buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.15 virtual std::size\_t de-**  
**caf::internal::util::ByteArrayAdapter::getFloatCapacity ()**  
const [inline, virtual]

Gets the capacity of the underlying array as if it contains doubles.

**Returns:**

the size the array.

**6.146.3.16** `virtual int decaf::internal::util::ByteArrayAdapter::getInt (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Reads four bytes at the given index and returns it. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the int at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.17** `virtual int* decaf::internal::util::ByteArrayAdapter::getIntArray ()`  
[inline, virtual]

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p.849) objects that point to this array.

**Returns:**

an int\* pointer to the array this object wraps.

**6.146.3.18** `virtual int decaf::internal::util::ByteArrayAdapter::getIntAt (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Reads four bytes at the given byte index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the int at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.19**    `virtual std::size_t decaf::internal::util::ByteArrayAdapter::getIntCapacity () const [inline, virtual]`

Gets the capacity of the underlying array as if it contains ints.

**Returns:**

the size the array.

**6.146.3.20**    `virtual long long decaf::internal::util::ByteArrayAdapter::getLong (std::size_t index) const throw (lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Reads eight bytes at the given index and returns it. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the long long at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.21**    `virtual long long* decaf::internal::util::ByteArrayAdapter::getLongArray () [inline, virtual]`

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p. 849) objects that point to this array.

**Returns:**

an long long\* pointer to the array this object wraps.

**6.146.3.22**    `virtual long long decaf::internal::util::ByteArrayAdapter::getLongAt (std::size_t index) const throw (lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Reads eight bytes at the given byte index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the long long at the given index in the buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.23** `virtual std::size_t decaf::internal::util::ByteArrayAdapter::getLongCapacity () const [inline, virtual]`

Gets the capacity of the underlying array as if it contains doubles.

**Returns:**

the size the array.

**6.146.3.24** `virtual short decaf::internal::util::ByteArrayAdapter::getShort (std::size_t index) const throw (lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Reads two bytes at the given index and returns it. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

***index*** - the index in the Buffer where the bytes are to be read

**Returns:**

the short at the given index in the buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.25** `virtual short* decaf::internal::util::ByteArrayAdapter::getShortArray () [inline, virtual]`

Gets the pointer to the array we are wrapping. Changes to the data in this array are reflected by all **ByteArrayAdapter** (p. 849) objects that point to this array.

**Returns:**

an short\* pointer to the array this object wraps.



**6.146.3.26** virtual short decaf::internal::util::ByteArrayAdapter::getShortAt (std::size\_t *index*) const throw ( lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Reads two bytes at the given byte index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the short at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

**6.146.3.27** virtual std::size\_t decaf::internal::util::ByteArrayAdapter::getShortCapacity () const [inline, virtual]

Gets the capacity of the underlying array as if it contains shorts.

**Returns:**

the size the array.

**6.146.3.28** const unsigned char& decaf::internal::util::ByteArrayAdapter::operator[] (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

**6.146.3.29** unsigned char& decaf::internal::util::ByteArrayAdapter::operator[] (std::size\_t *index*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

Allows the **ByteArrayAdapter** (p. 849) to be indexed as a standard array. calling the non const version allows the user to change the value at index

**Parameters:**

*index* - the position in the array to access

**Exceptions:**

*IndexOutOfBoundsException*

**6.146.3.30** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::put (std::size_t index, unsigned char value) throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Writes the given byte into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the byte to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.31** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putChar (std::size_t index, char value) throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Writes one byte containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.32** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putDouble (std::size_t index, double value) throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Writes eight bytes containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.33** virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putDoubleAt (std::size\_t *index*, double *value*) throw ( lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Writes eight bytes containing the given value, into this buffer at the given byte index.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.34** virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putFloat (std::size\_t *index*, float *value*) throw ( lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Writes four bytes containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.35** `virtual ByteArrayAdapter& de-  
caf::internal::util::ByteArrayAdapter::putFloatAt (std::size_t index,  
float value) throw ( lang::exceptions::IndexOutOfBoundsException )  
[virtual]`

Writes four bytes containing the given value, into this buffer at the given byte index.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.36** `virtual ByteArrayAdapter& de-  
caf::internal::util::ByteArrayAdapter::putInt (std::size_t  
index, int value) throw ( lang::exceptions::IndexOutOfBoundsException  
) [virtual]`

Writes four bytes containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.37** `virtual ByteArrayAdapter& de-  
caf::internal::util::ByteArrayAdapter::putIntAt (std::size_t index,  
int value) throw ( lang::exceptions::IndexOutOfBoundsException )  
[virtual]`

Writes four bytes containing the given value, into this buffer at the given byte index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.38** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putLong (std::size_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Writes eight bytes containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.39** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putLongAt (std::size_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Writes eight bytes containing the given value, into this buffer at the given byte index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.40** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putShort (std::size_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Writes two bytes containing the given value, into this buffer at the given index. The index is a relative to the size of the type to be read, in other words when accessing the element in the array `index * sizeof( type )` if the actual start index of the type to be read.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.41** `virtual ByteArrayAdapter& decaf::internal::util::ByteArrayAdapter::putShortAt (std::size_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Writes two bytes containing the given value, into this buffer at the given byte index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

**6.146.3.42** `virtual void decaf::internal::util::ByteArrayAdapter::read (unsigned char * buffer, std::size_t offset, std::size_t length) const throw ( decaf::lang::exceptions::NullPointerException, decaf::nio::BufferUnderflowException )` [virtual]

Reads from the Byte array starting at the specified offset and reading the specified length. If the length is greater than the capacity of this underlying byte array then an `BufferUnderflowException` is thrown.

**Parameters:**

*buffer* - the buffer to read data from this array into.

*offset* - position in this array to start reading from.

*length* - the amount of data to read from this array.

**Exceptions:**

*NullPointerException* if buffer is null

*BufferUnderflowException* if there is not enough data to read because the offset or the length is greater than the size of this array.

### 6.146.3.43 virtual void decaf::internal::util::ByteArrayAdapter::resize (std::size\_t capacity) throw ( lang::exceptions::InvalidStateException ) [virtual]

Resizes the underlying array to the new given capacity, preserving all the Data that was previously in the array, unless the resize is smaller than the current size in which case only the data that will fit into the new array is preserved. A **ByteArrayAdapter** (p. 849) can only be resized when it owns the underlying array, if it does not then it will throw an *InvalidStateException*.

**Parameters:**

*capacity* - the new capacity of the array.

**Exceptions:**

*InvalidStateException* if this object does not own the buffer.

### 6.146.3.44 virtual void decaf::internal::util::ByteArrayAdapter::write (unsigned char \* buffer, std::size\_t offset, std::size\_t length) throw ( decaf::lang::exceptions::NullPointerException, decaf::nio::BufferOverflowException ) [virtual]

Writes from the Byte array given, starting at the specified offset and writing the specified amount of data into this objects internal array. . If the length is greater than the capacity of this underlying byte array then an *BufferOverflowException* is thrown.

**Parameters:**

*buffer* - the buffer to write get data written into this array.

*offset* - position in this array to start writing from.

*length* - the amount of data to write to this array.

**Exceptions:**

*NullPointerException* if buffer is null

*BufferOverflowException* if the amount of data to be written to this array or the offset given are larger than this array's capacity.

The documentation for this class was generated from the following file:

- src/main/decaf/internal/util/ByteArrayAdapter.h

## 6.147 decaf::internal::nio::ByteBuffer Class Reference

This class defines six categories of operations upon byte buffers:.

#include <src/main/decaf/internal/nio/ByteBuffer.h> Inheritance diagram for decaf::internal::nio::ByteBuffer:

### Public Member Functions

- **ByteBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **ByteBuffer** (p. 870) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **ByteBuffer** (unsigned char \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **ByteBuffer** (p. 870) object that wraps the given array.*
- **ByteBuffer** (ByteBufferPerspective &array, std::size\_t offset, std::size\_t length, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteBufferPerspective** (p. 908) and start at the given offset.*
- **ByteBuffer** (const ByteBuffer &other)  
*Create a **ByteBuffer** (p. 870) that mirrors this one, meaning it shares a reference to this buffers **ByteBufferPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~ByteBuffer ()
- virtual bool isReadOnly () const  
*Tells whether or not this buffer is read-only.*
- virtual unsigned char \* array () throw ( decaf::nio::ReadOnlyBufferException, decaf::lang::exceptions::UnsupportedOperationException )  
*Returns the byte array that backs this buffer.*
- virtual std::size\_t arrayOffset () const throw ( decaf::nio::ReadOnlyBufferException, lang::exceptions::UnsupportedOperationException )  
*Returns the offset within this buffer's backing array of the first element of the buffer.*
- virtual bool hasArray () const  
*Tells whether or not this buffer is backed by an accessible byte array.*
- virtual decaf::nio::CharBuffer \* asCharBuffer () const  
*Creates a view of this byte buffer as a char buffer.*
- virtual decaf::nio::DoubleBuffer \* asDoubleBuffer () const  
*Creates a view of this byte buffer as a double buffer.*
- virtual decaf::nio::FloatBuffer \* asFloatBuffer () const



*Creates a view of this byte buffer as a float buffer.*

- virtual **decaf::nio::IntBuffer** \* **asIntBuffer** () const  
*Creates a view of this byte buffer as a int buffer.*
- virtual **decaf::nio::LongBuffer** \* **asLongBuffer** () const  
*Creates a view of this byte buffer as a long buffer.*
- virtual **decaf::nio::ShortBuffer** \* **asShortBuffer** () const  
*Creates a view of this byte buffer as a short buffer.*
- virtual **ByteBuffer** \* **asReadOnlyBuffer** () const  
*Creates a new, read-only byte buffer that shares this buffer's content.*
- virtual **ByteBuffer** & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **ByteBuffer** \* **duplicate** ()  
*Creates a new byte buffer that shares this buffer's content.*
- virtual unsigned char **get** () const throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*
- virtual unsigned char **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- virtual char **getChar** () throw ( decaf::nio::BufferUnderflowException )  
*Reads the next byte at this buffer's current position, and then increments the position by one.*
- virtual char **getChar** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads one byte at the given index and returns it.*
- virtual double **getDouble** () throw ( decaf::nio::BufferUnderflowException )  
*Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.*
- virtual double **getDouble** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given index and returns it.*
- virtual float **getFloat** () throw ( decaf::nio::BufferUnderflowException )  
*Reads the next four bytes at this buffer's current position, and then increments the position by that amount.*
- virtual float **getFloat** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given index and returns it.*
- virtual long long **getLong** () throw ( decaf::nio::BufferUnderflowException )

*Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.*

- virtual long long **getLong** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)

*Reads eight bytes at the given index and returns it.*

- virtual int **getInt** () throw (decaf::nio::BufferUnderflowException)

*Reads the next four bytes at this buffer's current position, and then increments the position by that amount.*

- virtual int **getInt** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)

*Reads four bytes at the given index and returns it.*

- virtual short **getShort** () throw (decaf::nio::BufferUnderflowException)

*Reads the next two bytes at this buffer's current position, and then increments the position by that amount.*

- virtual short **getShort** (std::size\_t index) const throw (lang::exceptions::IndexOutOfBoundsException)

*Reads two bytes at the given index and returns it.*

- virtual **ByteBuffer** & **put** (unsigned char value) throw (decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException)

*Writes the given byte into this buffer at the current position, and then increments the position.*

- virtual **ByteBuffer** & **put** (std::size\_t index, unsigned char value) throw (lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException)

*Writes the given byte into this buffer at the given index.*

- virtual **ByteBuffer** & **putChar** (char value) throw (decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException)

*Writes one byte containing the given value, into this buffer at the current position, and then increments the position by one.*

- virtual **ByteBuffer** & **putChar** (std::size\_t index, char value) throw (lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException)

*Writes one byte containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putDouble** (double value) throw (decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException)

*Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putDouble** (std::size\_t index, double value) throw (lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException)

*Writes eight bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putFloat** (float value) throw (decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException)

*Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putFloat** (std::size\_t index, float value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )

*Writes four bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putLong** (long long value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )

*Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putLong** (std::size\_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )

*Writes eight bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putInt** (int value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )

*Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putInt** (std::size\_t index, int value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )

*Writes four bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putShort** (short value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )

*Writes two bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putShort** (std::size\_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )

*Writes two bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** \* **slice** () const

*Creates a new byte buffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)

*Sets this **ByteBuffer** (p. 870) as Read-Only.*

### 6.147.1 Detailed Description

This class defines six categories of operations upon byte buffers:. 1. Absolute and relative get and put methods that read and write single bytes; 2. Relative bulk get methods that transfer contiguous sequences of bytes from this buffer into an array; 3. Relative bulk put methods that transfer contiguous sequences of bytes from a byte array or some other byte buffer into this buffer;

4. Absolute and relative get and put methods that read and write values of other primitive types, translating them to and from sequences of bytes in a particular byte order; 5. Methods for creating view buffers, which allow a byte buffer to be viewed as a buffer containing values of some other primitive type; and 6. Methods for compacting, duplicating, and slicing a byte buffer.

Byte buffers can be created either by allocation, which allocates space for the buffer's content, or by wrapping an existing byte array into a buffer.

Access to binary data:

This class defines methods for reading and writing values of all other primitive types, except boolean. Primitive values are translated to (or from) sequences of bytes according to the buffer's current byte order.

For access to heterogeneous binary data, that is, sequences of values of different types, this class defines a family of absolute and relative get and put methods for each type. For 32-bit floating-point values, for example, this class defines:

float **getFloat()** (p. 882) float getFloat(int index) void **putFloat(float f)** (p. 888) void putFloat(int index, float f)

Corresponding methods are defined for the types char, short, int, long, and double. The index parameters of the absolute get and put methods are in terms of bytes rather than of the type being read or written.

For access to homogeneous binary data, that is, sequences of values of the same type, this class defines methods that can create views of a given byte buffer. A view buffer is simply another buffer whose content is backed by the byte buffer. Changes to the byte buffer's content will be visible in the view buffer, and vice versa; the two buffers' position, limit, and mark values are independent. The asFloatBuffer method, for example, creates an instance of the FloatBuffer class that is backed by the byte buffer upon which the method is invoked. Corresponding view-creation methods are defined for the types char, short, int, long, and double.

View buffers have two important advantages over the families of type-specific get and put methods described above:

A view buffer is indexed not in terms of bytes but rather in terms of the type-specific size of its values;

A view buffer provides relative bulk get and put methods that can transfer contiguous sequences of values between a buffer and an array or some other buffer of the same type; and

## 6.147.2 Constructor & Destructor Documentation

### 6.147.2.1 `decaf::internal::nio::ByteBuffer::ByteBuffer (std::size_t capacity, bool readOnly = false)`

Creates a **ByteBuffer** (p. 870) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

**Parameters:**

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

### 6.147.2.2 decaf::internal::nio::ByteBuffer::ByteBuffer (unsigned char \* *array*, std::size\_t *offset*, std::size\_t *capacity*, bool *readOnly* = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **ByteBuffer** (p. 870) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

### 6.147.2.3 decaf::internal::nio::ByteBuffer::ByteBuffer (ByteBufferPerspective & *array*, std::size\_t *offset*, std::size\_t *length*, bool *readOnly* = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

Creates a byte buffer that wraps the passed **ByteBufferPerspective** (p. 908) and start at the given offset. The capacity and limit of the new **ByteBuffer** (p. 870) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteBufferPerspective** (p. 908) to wrap

*offset* - the offset into array where the buffer starts

*length* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

### 6.147.2.4 decaf::internal::nio::ByteBuffer::ByteBuffer (const ByteBuffer & *other*)

Create a **ByteBuffer** (p. 870) that mirrors this one, meaning it shares a reference to this buffers **ByteBufferPerspective** (p. 908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **ByteBuffer** (p. 870) this one is to mirror.

**6.147.2.5** `virtual decaf::internal::nio::ByteBuffer::~~ByteBuffer ()`  
[virtual]

### 6.147.3 Member Function Documentation

**6.147.3.1** `virtual unsigned char* decaf::internal::nio::ByteBuffer::array`  
`() throw ( decaf::nio::ReadOnlyBufferException,`  
`decaf::lang::exceptions::UnsupportedOperationException )` [virtual]

Returns the byte array that backs this buffer. Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

#### Returns:

The array that backs this buffer

#### Exceptions:

*ReadOnlyBufferException* - If this buffer is backed by an array but is read-only

*UnsupportedOperationException* - If this buffer is not backed by an accessible array

Implements `decaf::nio::ByteBuffer` (p. 918).

**6.147.3.2** `virtual std::size_t decaf::internal::nio::ByteBuffer::arrayOffset`  
`() const throw ( decaf::nio::ReadOnlyBufferException,`  
`lang::exceptions::UnsupportedOperationException )` [virtual]

Returns the offset within this buffer's backing array of the first element of the buffer. If this buffer is backed by an array then buffer position `p` corresponds to array index `p + arrayOffset()` (p. 876).

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

#### Returns:

The offset within this buffer's array of the first element of the buffer

#### Exceptions:

*ReadOnlyBufferException* - If this buffer is backed by an array but is read-only

*UnsupportedOperationException* - If this buffer is not backed by an accessible array

Implements `decaf::nio::ByteBuffer` (p. 919).

**6.147.3.3** `virtual decaf::nio::CharBuffer* de-`  
`caf::internal::nio::ByteBuffer::asCharBuffer () const`  
[inline, virtual]

Creates a view of this byte buffer as a char buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new Char Buffer, which the caller then owns.

Implements **decaf::nio::ByteBuffer** (p.919).

**6.147.3.4 virtual decaf::nio::DoubleBuffer\* decaf::internal::nio::ByteBuffer::asDoubleBuffer () const [inline, virtual]**

Creates a view of this byte buffer as a double buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by eight, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new double Buffer, which the caller then owns.

Implements **decaf::nio::ByteBuffer** (p.919).

**6.147.3.5 virtual decaf::nio::FloatBuffer\* decaf::internal::nio::ByteBuffer::asFloatBuffer () const [inline, virtual]**

Creates a view of this byte buffer as a float buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by four, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new float Buffer, which the caller then owns.

Implements **decaf::nio::ByteBuffer** (p.920).

**6.147.3.6 virtual decaf::nio::IntBuffer\* decaf::internal::nio::ByteBuffer::asIntBuffer () const [inline, virtual]**

Creates a view of this byte buffer as a int buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by four, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new `int Buffer`, which the caller then owns.

Implements `decaf::nio::ByteBuffer` (p. 920).

**6.147.3.7** `virtual decaf::nio::LongBuffer* decaf::internal::nio::ByteBuffer::asLongBuffer () const`  
[inline, virtual]

Creates a view of this byte buffer as a long buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by eight, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new long `Buffer`, which the caller then owns.

Implements `decaf::nio::ByteBuffer` (p. 920).

**6.147.3.8** `virtual ByteBuffer* decaf::internal::nio::ByteBuffer::asReadOnlyBuffer () const`  
[virtual]

Creates a new, read-only byte buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only byte buffer which the caller then owns.

Implements `decaf::nio::ByteBuffer` (p. 921).

**6.147.3.9** `virtual decaf::nio::ShortBuffer* decaf::internal::nio::ByteBuffer::asShortBuffer () const`  
[inline, virtual]

Creates a view of this byte buffer as a short buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.



The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by two, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new short Buffer, which the caller then owns.

Implements **decaf::nio::ByteBuffer** (p. 921).

### 6.147.3.10 virtual ByteBuffer& decaf::internal::nio::ByteBuffer::compact () throw ( decaf::nio::ReadOnlyBufferException ) [virtual]

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **ByteBuffer** (p. 870)

**Exceptions:**

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 921).

### 6.147.3.11 virtual ByteBuffer\* decaf::internal::nio::ByteBuffer::duplicate () [virtual]

Creates a new byte buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new Byte Buffer which the caller owns.

Implements **decaf::nio::ByteBuffer** (p. 922).

### 6.147.3.12 virtual unsigned char decaf::internal::nio::ByteBuffer::get (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]

Absolute get method. Reads the byte at the given index.

**Parameters:**

*index* - the index in the Buffer where the byte is to be read

**Returns:**

the byte that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::ByteBuffer** (p. 922).

**6.147.3.13** `virtual unsigned char decaf::internal::nio::ByteBuffer::get () const throw ( decaf::nio::BufferUnderflowException ) [virtual]`

Relative get method. Reads the byte at this buffer's current position, and then increments the position.

**Returns:**

The byte at the buffer's current position

**Exceptions:**

*BufferUnderflowException* - If the buffer's current position is not smaller than its limit

Implements **decaf::nio::ByteBuffer** (p. 923).

**6.147.3.14** `virtual char decaf::internal::nio::ByteBuffer::getChar (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [inline, virtual]`

Reads one byte at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the byte is to be read

**Returns:**

the char at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::ByteBuffer** (p. 924).

**6.147.3.15** `virtual char decaf::internal::nio::ByteBuffer::getChar () throw ( decaf::nio::BufferUnderflowException ) [inline, virtual]`

Reads the next byte at this buffer's current position, and then increments the position by one.

**Returns:**

the next char in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements **decaf::nio::ByteBuffer** (p. 924).

**6.147.3.16** virtual double decaf::internal::nio::ByteBuffer::getDouble (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]

Reads eight bytes at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the double at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implements **decaf::nio::ByteBuffer** (p. 925).

**6.147.3.17** virtual double decaf::internal::nio::ByteBuffer::getDouble () throw ( decaf::nio::BufferUnderflowException ) [virtual]

Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next double in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements **decaf::nio::ByteBuffer** (p. 925).

**6.147.3.18** virtual float decaf::internal::nio::ByteBuffer::getFloat (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]

Reads four bytes at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the float at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implements **decaf::nio::ByteBuffer** (p. 925).

**6.147.3.19**    **virtual float decaf::internal::nio::ByteBuffer::getFloat () throw ( decaf::nio::BufferUnderflowException ) [virtual]**

Reads the next four bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next float in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements **decaf::nio::ByteBuffer** (p. 926).

**6.147.3.20**    **virtual int decaf::internal::nio::ByteBuffer::getInt (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]**

Reads four bytes at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the int at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implements **decaf::nio::ByteBuffer** (p. 926).

**6.147.3.21**    `virtual int decaf::internal::nio::ByteBuffer::getInt () throw ( decaf::nio::BufferUnderflowException )` [virtual]

Reads the next four bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next int in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements `decaf::nio::ByteBuffer` (p. 926).

**6.147.3.22**    `virtual long long decaf::internal::nio::ByteBuffer::getLong (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Reads eight bytes at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the long long at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implements `decaf::nio::ByteBuffer` (p. 927).

**6.147.3.23**    `virtual long long decaf::internal::nio::ByteBuffer::getLong () throw ( decaf::nio::BufferUnderflowException )` [virtual]

Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next long long in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements `decaf::nio::ByteBuffer` (p. 927).

**6.147.3.24** `virtual short decaf::internal::nio::ByteBuffer::getShort (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Reads two bytes at the given index and returns it.

**Parameters:**

*index* - the index in the Buffer where the bytes are to be read

**Returns:**

the short at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implements `decaf::nio::ByteBuffer` (p. 927).

**6.147.3.25** `virtual short decaf::internal::nio::ByteBuffer::getShort () throw ( decaf::nio::BufferUnderflowException )` [virtual]

Reads the next two bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next short in the buffer..

**Exceptions:**

*BufferUnderflowException* - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implements `decaf::nio::ByteBuffer` (p. 928).

**6.147.3.26** `virtual bool decaf::internal::nio::ByteBuffer::hasArray () const` [inline, virtual]

Tells whether or not this buffer is backed by an accessible byte array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements `decaf::nio::ByteBuffer` (p. 928).

**6.147.3.27** `virtual bool decaf::internal::nio::ByteBuffer::isReadOnly () const` [inline, virtual]

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 928).

**6.147.3.28** `virtual ByteBuffer& decaf::internal::nio::ByteBuffer::put  
(std::size_t index, unsigned char value) throw  
( lang::exceptions::IndexOutOfBoundsException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given byte into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the byte to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 929).

**6.147.3.29** `virtual ByteBuffer& decaf::internal::nio::ByteBuffer::put  
(unsigned char value) throw ( decaf::nio::BufferOverflowException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given byte into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the byte value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** - If this buffer's current position is not smaller than its limit

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 929).

**6.147.3.30** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putChar (std::size\_t *index*, char *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes one byte containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements decaf::nio::ByteBuffer (p. 931).

**6.147.3.31** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putChar (char *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes one byte containing the given value, into this buffer at the current position, and then increments the position by one.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** - If this buffer is read-only

Implements decaf::nio::ByteBuffer (p. 931).

**6.147.3.32** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putDouble (std::size\_t *index*, double *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes eight bytes containing the given value, into this buffer at the given index.



**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 932).

**6.147.3.33** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putDouble (double *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If there are fewer than bytes remaining in this buffer than the size of the data to be written

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 932).

**6.147.3.34** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putFloat (std::size\_t *index*, float *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes four bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 933).

**6.147.3.35** **virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putFloat (float *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )** [virtual]

Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

***value*** - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 933).

**6.147.3.36** **virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putInt (std::size\_t *index*, int *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )** [virtual]

Writes four bytes containing the given value, into this buffer at the given index.

**Parameters:**

***index*** - position in the Buffer to write the data

***value*** - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 933).

**6.147.3.37** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putInt (int *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If there are fewer than bytes remaining in this buffer than the size of the data to be written

*ReadOnlyBufferException* - If this buffer is read-only

Implements decaf::nio::ByteBuffer (p. 934).

**6.147.3.38** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putLong (std::size\_t *index*, long long *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes eight bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements decaf::nio::ByteBuffer (p. 934).

**6.147.3.39** virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putLong (long long *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 935).

**6.147.3.40** `virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putShort (std::size_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes two bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 935).

**6.147.3.41** `virtual ByteBuffer& decaf::internal::nio::ByteBuffer::putShort (short value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes two bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If there are fewer than bytes remaining in this buffer than the size of the data to be written

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ByteBuffer** (p. 935).

**6.147.3.42** `virtual void decaf::internal::nio::ByteBuffer::setReadOnly (bool value) [inline, protected, virtual]`

Sets this **ByteBuffer** (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.147.3.43** `virtual ByteBuffer* decaf::internal::nio::ByteBuffer::slice () const [virtual]`

Creates a new byte buffer whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **ByteBuffer** (p. 870) which the caller owns.

Implements **decaf::nio::ByteBuffer** (p. 936).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/ByteBuffer.h`

## 6.148 decaf::io::ByteArrayInputStream Class Reference

Simple implementation of **InputStream** (p.1740) that wraps around an STL Vector `std::vector<unsigned char>`.

`#include <src/main/decaf/io/ByteArrayInputStream.h>` Inheritance diagram for `decaf::io::ByteArrayInputStream`:

### Public Member Functions

- **ByteArrayInputStream** ()  
*Default Constructor.*
- **ByteArrayInputStream** (const std::vector< unsigned char > &buffer)  
*Creates the input stream and calls setBuffer with the specified buffer object.*
- **ByteArrayInputStream** (const unsigned char \*buffer, std::size\_t bufferSize)  
*Constructor.*
- virtual ~**ByteArrayInputStream** ()
- virtual void **setBuffer** (const std::vector< unsigned char > &buffer)  
*Sets the internal buffer.*
- virtual void **setByteArray** (const unsigned char \*buffer, std::size\_t bufferSize)  
*Sets the data that this reader uses, replaces any existing data and resets to beginning of the buffer.*
- virtual std::size\_t **available** () const throw ( IOException )  
*Indicates the number of bytes available.*
- virtual int **read** () throw ( IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( IOException, lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*
- virtual void **close** () throw ( io::IOException )  
*Closes the target input stream.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Skips over and discards n bytes of data from this input stream.*
- virtual void **mark** (int readLimit DECAF\_UNUSED)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( IOException )

*Resets the read index to the beginning of the byte array, unless mark has been called and the markLimit has not been exceeded, in which case the stream is reset to the marked position.*

- virtual bool **markSupported** () const

*Determines if this input stream supports the mark and reset methods.*

## Protected Member Functions

- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )

*Locks the object.*

- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )

*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*

- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )

*Unlocks the object.*

- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

### 6.148.1 Detailed Description

Simple implementation of **InputStream** (p.1740) that wraps around an STL Vector `std::vector<unsigned char>`. Closing a **ByteArrayInputStream** (p.892) has no effect. The methods in this class can be called after the stream has been closed without generating an **IOException** (p.1820).

## 6.148.2 Constructor & Destructor Documentation

### 6.148.2.1 `decaf::io::ByteArrayInputStream::ByteArrayInputStream ()`

Default Constructor.

### 6.148.2.2 `decaf::io::ByteArrayInputStream::ByteArrayInputStream (const std::vector< unsigned char > & buffer)`

Creates the input stream and calls `setBuffer` with the specified buffer object.

#### Parameters:

*buffer* The buffer to be used.

### 6.148.2.3 `decaf::io::ByteArrayInputStream::ByteArrayInputStream (const unsigned char * buffer, std::size_t bufferSize)`

Constructor.

#### Parameters:

*buffer* initial byte array to use to read from

*bufferSize* the size of the buffer

### 6.148.2.4 `virtual decaf::io::ByteArrayInputStream::~~ByteArrayInputStream ()` [virtual]

## 6.148.3 Member Function Documentation

### 6.148.3.1 `virtual std::size_t decaf::io::ByteArrayInputStream::available () const throw ( IOException )` [inline, virtual]

Indicates the number of bytes available.

#### Returns:

The number of bytes until the end of the internal buffer.

Implements `decaf::io::InputStream` (p. 1741).

### 6.148.3.2 `virtual void decaf::io::ByteArrayInputStream::close () throw ( io::IOException )` [inline, virtual]

Closes the target input stream.

#### Exceptions:

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::Closeable` (p. 1019).



**6.148.3.3** `virtual void decaf::io::ByteArrayInputStream::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, protected, virtual]`

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.148.3.4** `virtual void decaf::io::ByteArrayInputStream::mark (int readLimit DECAF_UNUSED) [inline, virtual]`

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

**Parameters:**

*readLimit* - max bytes read before marked position is invalid.

Implements `decaf::io::InputStream` (p. 1741).

**6.148.3.5** `virtual bool decaf::io::ByteArrayInputStream::markSupported () const [inline, virtual]`

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

**Returns:**

true if this stream instance supports marks

Implements `decaf::io::InputStream` (p. 1741).

**6.148.3.6** `virtual void decaf::io::ByteArrayInputStream::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, protected, virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

**6.148.3.7** `virtual void decaf::io::ByteArrayInputStream::notifyAll  
() throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
protected, virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3125).

**6.148.3.8** `virtual int decaf::io::ByteArrayInputStream::read (unsigned char *  
buffer, std::size_t offset, std::size_t bufferSize) throw ( IOException,  
lang::exceptions::NullPointerException ) [virtual]`

Reads an array of bytes from the buffer.

**Parameters:**

*buffer* (out) the target buffer.

*offset* the position in the buffer to start reading from.

*bufferSize* the size of the output buffer.

**Returns:**

The number of bytes read.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::InputStream` (p. 1742).

**6.148.3.9** `virtual int decaf::io::ByteArrayInputStream::read () throw ( IOException  
) [virtual]`

Reads a single byte from the buffer.

**Returns:**

The next byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::InputStream` (p. 1742).

**6.148.3.10 virtual void decaf::io::ByteArrayInputStream::reset () throw (IOException) [virtual]**

Resets the read index to the beginning of the byte array, unless mark has been called and the markLimit has not been exceeded, in which case the stream is reset to the marked position.

Implements **decaf::io::InputStream** (p. 1742).

**6.148.3.11 virtual void decaf::io::ByteArrayInputStream::setBuffer (const std::vector< unsigned char > & buffer) [virtual]**

Sets the internal buffer. The input stream will wrap around this buffer and will perform all read operations on it. The position will be reinitialized to the beginning of the specified buffer. This class will not own the given buffer - it is the caller's responsibility to free the memory of the given buffer as appropriate.

**Parameters:**

*buffer* The buffer to be used.

**6.148.3.12 virtual void decaf::io::ByteArrayInputStream::setByteArray (const unsigned char \* buffer, std::size\_t bufferSize) [virtual]**

Sets the data that this reader uses, replaces any existing data and resets to beginning of the buffer.

**Parameters:**

*buffer* initial byte array to use to read from

*bufferSize* the size of the buffer

**6.148.3.13 virtual std::size\_t decaf::io::ByteArrayInputStream::skip (std::size\_t num) throw (io::IOException, lang::exceptions::UnsupportedOperationException) [virtual]**

Skips over and discards n bytes of data from this input stream. The skip method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from any of a number of conditions; reaching end of file before n bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If n is negative, no bytes are skipped.

The skip method of **InputStream** (p. 1740) creates a byte array and then repeatedly reads into it until n bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

**Parameters:**

*num* - the number of bytes to skip

**Returns:**

total bytes skipped

**Exceptions:**

*IOException* (p. 1820) if an error occurs

Implements **decaf::io::InputStream** (p. 1743).

**6.148.3.14** `virtual bool decaf::io::ByteArrayInputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, protected, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3126).

**6.148.3.15** `virtual void decaf::io::ByteArrayInputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, protected, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3127).

**6.148.3.16** `virtual void decaf::io::ByteArrayInputStream::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.148.3.17** `virtual void decaf::io::ByteArrayInputStream::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.148.3.18** `virtual void decaf::io::ByteArrayInputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/ByteArrayInputStream.h`

## 6.149 decaf::io::ByteArrayOutputStream Class Reference

#include <src/main/decaf/io/ByteArrayOutputStream.h> Inheritance diagram for decaf::io::ByteArrayOutputStream:

### Public Member Functions

- **ByteArrayOutputStream** ()  
*Default Constructor - uses a default internal buffer.*
- **ByteArrayOutputStream** (std::vector< unsigned char > &buffer)  
*Uses the given buffer as the target.*
- virtual ~**ByteArrayOutputStream** ()
- virtual void **setBuffer** (std::vector< unsigned char > &buffer)  
*Sets the internal buffer.*
- virtual const unsigned char \* **toByteArray** () const  
*Get a snapshot of the data.*
- virtual const std::vector< unsigned char > **toByteArrayRef** () const  
*Get a snapshot of the data.*
- virtual std::size\_t **size** () const  
*Get the Size of the Internal Buffer.*
- virtual void **write** (unsigned char c) throw ( IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** () throw ( IOException )  
*Invokes flush on the target output stream, has no affect.*
- virtual void **reset** () throw ( IOException )  
*Clear current Stream contents.*
- void **close** () throw ( io::IOException )  
*Invokes close on the target output stream.*
- std::string **toString** () const  
*Converts the bytes in the buffer into a standard C++ string.*

- void **writeTo** (**OutputStream** \*out) const throw ( IOException, lang::exceptions::NullPointerException )  
*Writes the complete contents of this byte array output stream to the specified output stream argument, as if by calling the output stream's write method using out.write( buf, 0, count ).*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

## 6.149.1 Constructor & Destructor Documentation

### 6.149.1.1 decaf::io::ByteArrayOutputStream::ByteArrayOutputStream ()

Default Constructor - uses a default internal buffer.

### 6.149.1.2 decaf::io::ByteArrayOutputStream::ByteArrayOutputStream (std::vector< unsigned char > & buffer)

Uses the given buffer as the target. Calls setBuffer.

**Parameters:**

*buffer* the target buffer.

**6.149.1.3** `virtual decaf::io::ByteArrayOutputStream::~~ByteArrayOutputStream ()`  
[inline, virtual]

**6.149.2 Member Function Documentation**

**6.149.2.1** `void decaf::io::ByteArrayOutputStream::close () throw ( io::IOException )`  
[inline, virtual]

Invokes close on the target output stream.

**Exceptions:**

*IOException* (p. 1820)

Implements **decaf::io::Closeable** (p. 1019).

**6.149.2.2** `virtual void decaf::io::ByteArrayOutputStream::flush () throw ( IOException )`  
[inline, virtual]

Invokes flush on the target output stream, has no affect.

**Exceptions:**

*IOException* (p. 1820)

Implements **decaf::io::OutputStream** (p. 2470).

**6.149.2.3** `virtual void decaf::io::ByteArrayOutputStream::lock () throw ( decaf::lang::exceptions::RuntimeException )`  
[inline, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3123).

**6.149.2.4** `virtual void decaf::io::ByteArrayOutputStream::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )`  
[inline, virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.



*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3124).

**6.149.2.5** `virtual void decaf::io::ByteArrayOutputStream::notifyAll  
() throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

**6.149.2.6** `virtual void decaf::io::ByteArrayOutputStream::reset () throw (  
IOException ) [virtual]`

Clear current Stream contents.

**Exceptions:**

*IOException* (p. 1820)

**6.149.2.7** `virtual void decaf::io::ByteArrayOutputStream::setBuffer (std::vector<  
unsigned char > & buffer) [virtual]`

Sets the internal buffer. This input stream will wrap around the given buffer and all writes will be performed directly on the buffer. This object does not retain control of the buffer's lifetime however - this is the job of the caller.

**Parameters:**

*buffer* The target buffer.

**6.149.2.8** `virtual std::size_t decaf::io::ByteArrayOutputStream::size () const  
[inline, virtual]`

Get the Size of the Internal Buffer.

**Returns:**

size of the internal buffer

**6.149.2.9** `virtual const unsigned char* decaf::io::ByteArrayOutputStream::toByteArray () const [inline, virtual]`

Get a snapshot of the data.

**Returns:**

pointer to the data

**6.149.2.10** `virtual const std::vector<unsigned char> decaf::io::ByteArrayOutputStream::toByteArrayRef () const [inline, virtual]`

Get a snapshot of the data.

**Returns:**

reference to the underlying data as a const std::vector<unsigned char>&

**6.149.2.11** `std::string decaf::io::ByteArrayOutputStream::toString () const`

Converts the bytes in the buffer into a standard C++ string.

**Returns:**

a string containing the bytes in the buffer

**6.149.2.12** `virtual bool decaf::io::ByteArrayOutputStream::tryLock () throw (decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3126).

**6.149.2.13** `virtual void decaf::io::ByteArrayOutputStream::unlock () throw (decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3127).

**6.149.2.14** `virtual void decaf::io::ByteArrayOutputStream::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3128).

**6.149.2.15** `virtual void decaf::io::ByteArrayOutputStream::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3130).

**6.149.2.16** `virtual void decaf::io::ByteArrayOutputStream::wait  
() throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to `Notify`. Must have this object locked before calling.

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3131).

**6.149.2.17** `virtual void decaf::io::ByteArrayOutputStream::write (const unsigned  
char * buffer, std::size_t offset, std::size_t len) throw ( IOException,  
lang::exceptions::NullPointerException ) [virtual]`

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The array of bytes to write.

*offset* the position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* thrown if buffer is Null.

Implements `decaf::io::OutputStream` (p. 2471).

**6.149.2.18** `virtual void decaf::io::ByteArrayOutputStream::write (const  
std::vector< unsigned char > & buffer) throw ( IOException )  
[virtual]`

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::OutputStream` (p. 2471).

**6.149.2.19**    `virtual void decaf::io::ByteArrayOutputStream::write (unsigned char c)  
                  throw ( IOException )` [virtual]

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

**6.149.2.20**    `void decaf::io::ByteArrayOutputStream::writeTo (OutputStream * out)  
                  const throw ( IOException, lang::exceptions::NullPointerException )`

Writes the complete contents of this byte array output stream to the specified output stream argument, as if by calling the output stream's write method using `out.write( buf, 0, count )`.

The documentation for this class was generated from the following file:

- `src/main/decaf/io/ByteArrayOutputStream.h`

## 6.150 decaf::internal::nio::ByteArrayPerspective Class Reference

This class extends ByteArray to create a reference counted byte array that can be held and used by several different ByteBuffers and allow them to know on destruction whose job it is to delete the perspective.

#include <src/main/decaf/internal/nio/ByteArrayPerspective.h>Inheritance diagram for decaf::internal::nio::ByteArrayPerspective:

### Public Member Functions

- **ByteArrayPerspective** (std::size\_t capacity)  
*Creates a byte array object that is allocated internally and is then owned and deleted when this object is deleted.*
- **ByteArrayPerspective** (unsigned char \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a byte array object that wraps the given array.*
- **ByteArrayPerspective** (char \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- **ByteArrayPerspective** (double \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- **ByteArrayPerspective** (float \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- **ByteArrayPerspective** (long long \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- **ByteArrayPerspective** (int \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- **ByteArrayPerspective** (short \*array, std::size\_t capacity, bool own=false) throw (lang::exceptions::NullPointerException )  
*Creates a array object that wraps the given array.*
- virtual ~**ByteArrayPerspective** ()
- **ByteArrayPerspective \* takeRef** ()  
*Takes a reference to this Perspective and returns a pointer to this so that a caller can take a ref and get a ref in one call.*

- void **returnRef** ()

*Returns a reference to this Perspective, when the count is zero it should be deleted.*

- int **getReferences** () const

### 6.150.1 Detailed Description

This class extends ByteArray to create a reference counted byte array that can be held and used by several different ByteBuffers and allow them to know on destruction whose job it is to delete the perspective. Creating an instance of this class implicitly takes a reference to it, so a creator must return its ref before the count will be zero.

### 6.150.2 Constructor & Destructor Documentation

#### 6.150.2.1 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (std::size\_t capacity)

Creates a byte array object that is allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size of the array, this is the limit we read and write to.

#### 6.150.2.2 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (unsigned char \* array, std::size\_t capacity, bool own = false) throw (lang::exceptions::NullPointerException)

Creates a byte array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

##### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.3 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (char \* array, std::size\_t capacity, bool own = false) throw (lang::exceptions::NullPointerException)

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.4 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (double \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.5 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (float \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.6 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (long long \* *array*, std::size\_t *capacity*, bool *own* = false) throw ( lang::exceptions::NullPointerException )

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap



*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.7 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (int \* array, std::size\_t capacity, bool own = false) throw (lang::exceptions::NullPointerException)

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.8 decaf::internal::nio::ByteArrayPerspective::ByteArrayPerspective (short \* array, std::size\_t capacity, bool own = false) throw (lang::exceptions::NullPointerException)

Creates a array object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*capacity* - size of the array, this is the limit we read and write to.

*own* - is this class now the owner of the pointer.

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.150.2.9 virtual decaf::internal::nio::ByteArrayPerspective::~~ByteArrayPerspective () [inline, virtual]

### 6.150.3 Member Function Documentation

#### 6.150.3.1 int decaf::internal::nio::ByteArrayPerspective::getReferences () const [inline]

#### Returns:

the current number of reference on this perspective

**6.150.3.2** `void decaf::internal::nio::ByteArrayPerspective::returnRef () [inline]`

Returns a reference to this Perspective, when the count is zero it should be deleted.

**6.150.3.3** `ByteArrayPerspective* decaf::internal::nio::ByteArrayPerspective::takeRef () [inline]`

Takes a reference to this Perspective and returns a pointer to this so that a caller can take a ref and get a ref in one call.

**Returns:**

this

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/ByteArrayPerspective.h`

## 6.151 decaf::nio::ByteBuffer Class Reference

This class defines six categories of operations upon byte buffers:.

#include <src/main/decaf/nio/ByteBuffer.h> Inheritance diagram for decaf::nio::ByteBuffer:

### Public Member Functions

- virtual **~ByteBuffer** ()
- virtual std::string **toString** () const
- **ByteBuffer** & **get** (std::vector< unsigned char > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **ByteBuffer** & **get** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- **ByteBuffer** & **put** (**ByteBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the bytes remaining in the given source buffer into this buffer.*
- **ByteBuffer** & **put** (const unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )  
*This method transfers bytes into this buffer from the given source array.*
- **ByteBuffer** & **put** (std::vector< unsigned char > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )  
*This method transfers the entire content of the given source byte array into this buffer.*
- virtual bool **isReadOnly** () const =0  
*Tells whether or not this buffer is read-only.*
- virtual unsigned char \* **array** ()=0 throw ( ReadOnlyBufferException, lang::exceptions::UnsupportedOperationException )  
*Returns the byte array that backs this buffer.*
- virtual std::size\_t **arrayOffset** () const =0 throw ( ReadOnlyBufferException, lang::exceptions::UnsupportedOperationException )  
*Returns the offset within this buffer's backing array of the first element of the buffer.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible byte array.*
- virtual **CharBuffer** \* **asCharBuffer** () const =0  
*Creates a view of this byte buffer as a char buffer.*

- virtual **DoubleBuffer** \* **asDoubleBuffer** () const =0  
*Creates a view of this byte buffer as a double buffer.*
- virtual **FloatBuffer** \* **asFloatBuffer** () const =0  
*Creates a view of this byte buffer as a float buffer.*
- virtual **IntBuffer** \* **asIntBuffer** () const =0  
*Creates a view of this byte buffer as a int buffer.*
- virtual **LongBuffer** \* **asLongBuffer** () const =0  
*Creates a view of this byte buffer as a long buffer.*
- virtual **ShortBuffer** \* **asShortBuffer** () const =0  
*Creates a view of this byte buffer as a short buffer.*
- virtual **ByteBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only byte buffer that shares this buffer's content.*
- virtual **ByteBuffer** & **compact** ()=0 throw ( **ReadOnlyBufferException** )  
*Compacts this buffer.*
- virtual **ByteBuffer** \* **duplicate** ()=0  
*Creates a new byte buffer that shares this buffer's content.*
- virtual unsigned char **get** () const =0 throw ( **BufferUnderflowException** )  
*Relative get method.*
- virtual unsigned char **get** (std::size\_t index) const =0 throw ( **lang::exceptions::IndexOutOfBoundsException** )  
*Absolute get method.*
- virtual char **getChar** ()=0 throw ( **BufferUnderflowException** )  
*Reads the next byte at this buffer's current position, and then increments the position by one.*
- virtual char **getChar** (std::size\_t index) const =0 throw ( **lang::exceptions::IndexOutOfBoundsException** )  
*Reads one byte at the given index and returns it.*
- virtual double **getDouble** ()=0 throw ( **BufferUnderflowException** )  
*Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.*
- virtual double **getDouble** (std::size\_t index) const =0 throw ( **lang::exceptions::IndexOutOfBoundsException** )  
*Reads eight bytes at the given index and returns it.*
- virtual float **getFloat** ()=0 throw ( **BufferUnderflowException** )  
*Reads the next four bytes at this buffer's current position, and then increments the position by that amount.*

- virtual float **getFloat** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given index and returns it.*
- virtual long long **getLong** ()=0 throw ( BufferUnderflowException )  
*Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.*
- virtual long long **getLong** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads eight bytes at the given index and returns it.*
- virtual int **getInt** ()=0 throw ( BufferUnderflowException )  
*Reads the next four bytes at this buffer's current position, and then increments the position by that amount.*
- virtual int **getInt** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads four bytes at the given index and returns it.*
- virtual short **getShort** ()=0 throw ( BufferUnderflowException )  
*Reads the next two bytes at this buffer's current position, and then increments the position by that amount.*
- virtual short **getShort** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Reads two bytes at the given index and returns it.*
- virtual **ByteBuffer** & **put** (unsigned char value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes the given byte into this buffer at the current position, and then increments the position.*
- virtual **ByteBuffer** & **put** (std::size\_t index, unsigned char value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )  
*Writes the given byte into this buffer at the given index.*
- virtual **ByteBuffer** & **putChar** (char value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes one byte containing the given value, into this buffer at the current position, and then increments the position by one.*
- virtual **ByteBuffer** & **putChar** (std::size\_t index, char value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )  
*Writes one byte containing the given value, into this buffer at the given index.*
- virtual **ByteBuffer** & **putDouble** (double value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*
- virtual **ByteBuffer** & **putDouble** (std::size\_t index, double value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )

*Writes eight bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putFloat** (float value)=0 throw ( **BufferOverflowException**, **ReadOnlyBufferException** )

*Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putFloat** (std::size\_t index, float value)=0 throw ( **lang::exceptions::IndexOutOfBoundsException**, **ReadOnlyBufferException** )

*Writes four bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putLong** (long long value)=0 throw ( **BufferOverflowException**, **ReadOnlyBufferException** )

*Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putLong** (std::size\_t index, long long value)=0 throw ( **lang::exceptions::IndexOutOfBoundsException**, **ReadOnlyBufferException** )

*Writes eight bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putInt** (int value)=0 throw ( **BufferOverflowException**, **ReadOnlyBufferException** )

*Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putInt** (std::size\_t index, int value)=0 throw ( **lang::exceptions::IndexOutOfBoundsException**, **ReadOnlyBufferException** )

*Writes four bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** & **putShort** (short value)=0 throw ( **BufferOverflowException**, **ReadOnlyBufferException** )

*Writes two bytes containing the given value, into this buffer at the current position, and then increments the position by eight.*

- virtual **ByteBuffer** & **putShort** (std::size\_t index, short value)=0 throw ( **lang::exceptions::IndexOutOfBoundsException**, **ReadOnlyBufferException** )

*Writes two bytes containing the given value, into this buffer at the given index.*

- virtual **ByteBuffer** \* **slice** () const =0

*Creates a new byte buffer whose content is a shared subsequence of this buffer's content.*

- virtual int **compareTo** (const **ByteBuffer** &value) const

*Compares this object with the specified object for order.*

- virtual bool **equals** (const **ByteBuffer** &value) const

- virtual bool **operator==** (const **ByteBuffer** &value) const

*Compares equality between this object and the one passed.*

- virtual bool **operator<** (const **ByteBuffer** &value) const

*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **ByteBuffer** \* **allocate** (std::size\_t capacity)  
*Allocates a new byte buffer whose position will be zero its limit will be its capacity and its mark is not set.*
- static **ByteBuffer** \* **wrap** (unsigned char \*array, std::size\_t offset, std::size\_t length)  
throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new **ByteBuffer** (p. 913).*
- static **ByteBuffer** \* **wrap** (std::vector< unsigned char > &buffer)  
*Wraps the passed STL Byte Vector in a **ByteBuffer** (p. 913).*

## Protected Member Functions

- **ByteBuffer** (std::size\_t capacity)  
*Creates a **ByteBuffer** (p. 913) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.151.1 Detailed Description

This class defines six categories of operations upon byte buffers:. 1. Absolute and relative get and put methods that read and write single bytes; 2. Relative bulk get methods that transfer contiguous sequences of bytes from this buffer into an array; 3. Relative bulk put methods that transfer contiguous sequences of bytes from a byte array or some other byte buffer into this buffer; 4. Absolute and relative get and put methods that read and write values of other primitive types, translating them to and from sequences of bytes in a particular byte order; 5. Methods for creating view buffers, which allow a byte buffer to be viewed as a buffer containing values of some other primitive type; and 6. Methods for compacting, duplicating, and slicing a byte buffer.

Byte buffers can be created either by allocation, which allocates space for the buffer's content, or by wrapping an existing byte array into a buffer.

Access to binary data:

This class defines methods for reading and writing values of all other primitive types, except boolean. Primitive values are translated to (or from) sequences of bytes according to the buffer's current byte order.

For access to heterogeneous binary data, that is, sequences of values of different types, this class defines a family of absolute and relative get and put methods for each type. For 32-bit floating-point values, for example, this class defines:

float **getFloat()** (p. 926) float getFloat(int index) void **putFloat(float f)** (p. 933) void putFloat(int index, float f)

Corresponding methods are defined for the types char, short, int, long, and double. The index parameters of the absolute get and put methods are in terms of bytes rather than of the type being read or written.

For access to homogeneous binary data, that is, sequences of values of the same type, this class defines methods that can create views of a given byte buffer. A view buffer is simply another buffer whose content is backed by the byte buffer. Changes to the byte buffer's content will be visible in

the view buffer, and vice versa; the two buffers' position, limit, and mark values are independent. The `asFloatBuffer` method, for example, creates an instance of the **FloatBuffer** (p.1665) class that is backed by the byte buffer upon which the method is invoked. Corresponding view-creation methods are defined for the types `char`, `short`, `int`, `long`, and `double`.

View buffers have two important advantages over the families of type-specific get and put methods described above:

A view buffer is indexed not in terms of bytes but rather in terms of the type-specific size of its values;

A view buffer provides relative bulk get and put methods that can transfer contiguous sequences of values between a buffer and an array or some other buffer of the same type; and

## 6.151.2 Constructor & Destructor Documentation

### 6.151.2.1 `decaf::nio::ByteBuffer::ByteBuffer (std::size_t capacity)` [protected]

Creates a **ByteBuffer** (p.913) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

#### Parameters:

*capacity* - size of the array, this is the limit we read and write to.

### 6.151.2.2 `virtual decaf::nio::ByteBuffer::~~ByteBuffer ()` [inline, virtual]

## 6.151.3 Member Function Documentation

### 6.151.3.1 `static ByteBuffer* decaf::nio::ByteBuffer::allocate (std::size_t capacity)` [static]

Allocates a new byte buffer whose position will be zero its limit will be its capacity and its mark is not set.

#### Parameters:

*capacity* - the internal buffer's capacity.

#### Returns:

a newly allocated **ByteBuffer** (p.913) which the caller owns.

### 6.151.3.2 `virtual unsigned char* decaf::nio::ByteBuffer::array () throw ( ReadOnlyBufferException, lang::exceptions::UnsupportedOperationException )` [pure virtual]

Returns the byte array that backs this buffer. Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.



**Returns:**

The array that backs this buffer

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is backed by an array but is read-only

*UnsupportedOperationException* - If this buffer is not backed by an accessible array

Implemented in **decaf::internal::nio::ByteBuffer** (p. 876).

**6.151.3.3** `virtual std::size_t decaf::nio::ByteBuffer::arrayOffset  
( ) const throw ( ReadOnlyBufferException,  
lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer. If this buffer is backed by an array then buffer position *p* corresponds to array index *p* + **arrayOffset()** (p. 919).

Invoke the **hasArray** method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset within this buffer's array of the first element of the buffer

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is backed by an array but is read-only

*UnsupportedOperationException* - If this buffer is not backed by an accessible array

Implemented in **decaf::internal::nio::ByteBuffer** (p. 876).

**6.151.3.4** `virtual CharBuffer* decaf::nio::ByteBuffer::asCharBuffer ( ) const [pure  
virtual]`

Creates a view of this byte buffer as a char buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new **Char Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 876).

**6.151.3.5** `virtual DoubleBuffer* decaf::nio::ByteBuffer::asDoubleBuffer ( ) const  
[pure virtual]`

Creates a view of this byte buffer as a double buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by eight, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new double **Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 877).

**6.151.3.6 virtual FloatBuffer\* decaf::nio::ByteBuffer::asFloatBuffer () const [pure virtual]**

Creates a view of this byte buffer as a float buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by four, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new float **Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 877).

**6.151.3.7 virtual IntBuffer\* decaf::nio::ByteBuffer::asIntBuffer () const [pure virtual]**

Creates a view of this byte buffer as a int buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by four, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new int **Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 877).

**6.151.3.8 virtual LongBuffer\* decaf::nio::ByteBuffer::asLongBuffer () const [pure virtual]**

Creates a view of this byte buffer as a long buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by eight, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new long **Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 878).

**6.151.3.9 virtual ByteBuffer\* decaf::nio::ByteBuffer::asReadOnlyBuffer () const**  
[pure virtual]

Creates a new, read-only byte buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the duplicate method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only byte buffer which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 878).

**6.151.3.10 virtual ShortBuffer\* decaf::nio::ByteBuffer::asShortBuffer () const**  
[pure virtual]

Creates a view of this byte buffer as a short buffer. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer divided by two, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the new short **Buffer** (p. 803), which the caller then owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 878).

**6.151.3.11 virtual ByteBuffer& decaf::nio::ByteBuffer::compact () throw (**  
**ReadOnlyBufferException )** [pure virtual]

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n + 1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **ByteBuffer** (p. 913)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 879).

**6.151.3.12 virtual int decaf::nio::ByteBuffer::compareTo (const ByteBuffer & value) const [virtual]**

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.151.3.13 virtual ByteBuffer\* decaf::nio::ByteBuffer::duplicate () [pure virtual]**

Creates a new byte buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new Byte **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 879).

**6.151.3.14 virtual bool decaf::nio::ByteBuffer::equals (const ByteBuffer & value) const [virtual]****Returns:**

true if this value is considered equal to the passed value.

**6.151.3.15 virtual unsigned char decaf::nio::ByteBuffer::get (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]**

Absolute get method. Reads the byte at the given index.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the byte is to be read

**Returns:**

the byte that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::ByteBuffer** (p. 879).

### 6.151.3.16 virtual unsigned char decaf::nio::ByteBuffer::get () const throw ( **BufferUnderflowException** ) [pure virtual]

Relative get method. Reads the byte at this buffer's current position, and then increments the position.

**Returns:**

The byte at the buffer's current position

**Exceptions:**

*BufferUnderflowException* (p. 837) - If the buffer's current position is not smaller than its limit

Implemented in **decaf::internal::nio::ByteBuffer** (p. 880).

### 6.151.3.17 ByteBuffer& decaf::nio::ByteBuffer::get (unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( **BufferUnderflowException**, lang::exceptions::NullPointerException )

Relative bulk get method. This method transfers bytes from this buffer into the given destination array. If there are fewer bytes remaining in the buffer than are required to satisfy the request, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies `length` bytes from this buffer into the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by `length`.

**Parameters:**

*buffer* - pointer to an allocated buffer to fill

*offset* - position in the buffer to start filling

*length* - amount of data to put in the passed buffer

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are fewer than `length` bytes remaining in this buffer

*NullPointerException* if the passed buffer is null.

### 6.151.3.18 `ByteBuffer& decaf::nio::ByteBuffer::get (std::vector< unsigned char > buffer) throw ( BufferUnderflowException )`

Relative bulk get method. This method transfers bytes from this buffer into the given destination vector. An invocation of this method of the form `src.get(a)` behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call `buffer.resize( N )` before calling this get method.

#### Returns:

a reference to this Byte **Buffer** (p. 803)

#### Exceptions:

*BufferUnderflowException* (p. 837) - If there are fewer than length bytes remaining in this buffer

### 6.151.3.19 `virtual char decaf::nio::ByteBuffer::getChar (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Reads one byte at the given index and returns it.

#### Parameters:

*index* - the index in the **Buffer** (p. 803) where the byte is to be read

#### Returns:

the char at the given index in the buffer

#### Exceptions:

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in `decaf::internal::nio::ByteArrayBuffer` (p. 880).

### 6.151.3.20 `virtual char decaf::nio::ByteBuffer::getChar () throw ( BufferUnderflowException ) [pure virtual]`

Reads the next byte at this buffer's current position, and then increments the position by one.

#### Returns:

the next char in the buffer..

#### Exceptions:

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in `decaf::internal::nio::ByteArrayBuffer` (p. 880).

**6.151.3.21**    `virtual double decaf::nio::ByteBuffer::getDouble (std::size_t index)  
const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure  
virtual]`

Reads eight bytes at the given index and returns it.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the bytes are to be read

**Returns:**

the double at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implemented in **decaf::internal::nio::ByteBuffer** (p. 881).

**6.151.3.22**    `virtual double decaf::nio::ByteBuffer::getDouble () throw (  
BufferUnderflowException ) [pure virtual]`

Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next double in the buffer..

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 881).

**6.151.3.23**    `virtual float decaf::nio::ByteBuffer::getFloat (std::size_t index) const  
throw ( lang::exceptions::IndexOutOfBoundsException ) [pure  
virtual]`

Reads four bytes at the given index and returns it.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the bytes are to be read

**Returns:**

the float at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implemented in **decaf::internal::nio::ByteBuffer** (p. 881).

**6.151.3.24**    `virtual float decaf::nio::ByteBuffer::getFloat () throw (`  
                  `BufferUnderflowException )` [pure virtual]

Reads the next four bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next float in the buffer..

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in `decaf::internal::nio::ByteBuffer` (p. 882).

**6.151.3.25**    `virtual int decaf::nio::ByteBuffer::getInt (std::size_t index) const throw`  
                  `( lang::exceptions::IndexOutOfBoundsException )` [pure virtual]

Reads four bytes at the given index and returns it.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the bytes are to be read

**Returns:**

the int at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implemented in `decaf::internal::nio::ByteBuffer` (p. 882).

**6.151.3.26**    `virtual int decaf::nio::ByteBuffer::getInt () throw (`  
                  `BufferUnderflowException )` [pure virtual]

Reads the next four bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next int in the buffer..

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in `decaf::internal::nio::ByteBuffer` (p. 883).



**6.151.3.27** `virtual long long decaf::nio::ByteBuffer::getLong (std::size_t index)  
const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure  
virtual]`

Reads eight bytes at the given index and returns it.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the bytes are to be read

**Returns:**

the long long at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implemented in **decaf::internal::nio::ByteBuffer** (p. 883).

**6.151.3.28** `virtual long long decaf::nio::ByteBuffer::getLong () throw (  
BufferUnderflowException ) [pure virtual]`

Reads the next eight bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next long long in the buffer..

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 883).

**6.151.3.29** `virtual short decaf::nio::ByteBuffer::getShort (std::size_t index)  
const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure  
virtual]`

Reads two bytes at the given index and returns it.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the bytes are to be read

**Returns:**

the short at the given index in the buffer

**Exceptions:**

*IndexOutOfBoundsException* - If there are not enough bytes remaining to fill the requested Data Type

Implemented in **decaf::internal::nio::ByteBuffer** (p. 884).

**6.151.3.30 virtual short decaf::nio::ByteBuffer::getShort () throw ( BufferUnderflowException ) [pure virtual]**

Reads the next two bytes at this buffer's current position, and then increments the position by that amount.

**Returns:**

the next short in the buffer..

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are no more bytes remaining in this buffer, meaning we have reached the set limit.

Implemented in **decaf::internal::nio::ByteArrayBuffer** (p. 884).

**6.151.3.31 virtual bool decaf::nio::ByteBuffer::hasArray () const [pure virtual]**

Tells whether or not this buffer is backed by an accessible byte array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::ByteArrayBuffer** (p. 884).

**6.151.3.32 virtual bool decaf::nio::ByteBuffer::isReadOnly () const [pure virtual]**

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::Buffer** (p. 806).

Implemented in **decaf::internal::nio::ByteArrayBuffer** (p. 884).

**6.151.3.33 virtual bool decaf::nio::ByteBuffer::operator< (const ByteBuffer & value) const [virtual]**

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.151.3.34 virtual bool decaf::nio::ByteBuffer::operator==(const ByteBuffer & *value*) const** [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.151.3.35 virtual ByteBuffer& decaf::nio::ByteBuffer::put (std::size\_t *index*, unsigned char *value*) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )** [pure virtual]

Writes the given byte into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data  
*value* - the byte to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 885).

**6.151.3.36 virtual ByteBuffer& decaf::nio::ByteBuffer::put (unsigned char *value*) throw ( BufferOverflowException, ReadOnlyBufferException )** [pure virtual]

Writes the given byte into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the byte value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 885).

### 6.151.3.37 `ByteBuffer& decaf::nio::ByteBuffer::put (std::vector< unsigned char > & buffer) throw ( BufferOverflowException, ReadOnlyBufferException )`

This method transfers the entire content of the given source byte array into this buffer. This is the same as calling `put( &buffer[0], 0, buffer.size()`

#### Parameters:

*buffer* - The buffer whose contents are copied to this `ByteBuffer` (p. 913)

#### Returns:

a reference to this buffer

#### Exceptions:

*`BufferOverflowException`* (p. 834) - If there is insufficient space in this buffer

*`ReadOnlyBufferException`* (p. 2685) - If this buffer is read-only

### 6.151.3.38 `ByteBuffer& decaf::nio::ByteBuffer::put (const unsigned char * buffer, std::size_t offset, std::size_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )`

This method transfers bytes into this buffer from the given source array. If there are more bytes to be copied from the array than remain in this buffer, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a `BufferOverflowException` (p. 834) is thrown.

Otherwise, this method copies `length` bytes from the given array into this buffer, starting at the given `offset` in the array and at the current position of this buffer. The position of this buffer is then incremented by `length`.

#### Parameters:

*buffer* - The array from which bytes are to be read

*offset* - The offset within the array of the first byte to be read;

*length* - The number of bytes to be read from the given array

#### Returns:

a reference to this buffer

#### Exceptions:

*`BufferOverflowException`* (p. 834) - If there is insufficient space in this buffer

*`ReadOnlyBufferException`* (p. 2685) - If this buffer is read-only

*`NullPointerException`* if the passed buffer is null.

### 6.151.3.39 `ByteBuffer& decaf::nio::ByteBuffer::put (ByteBuffer & src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )`

This method transfers the bytes remaining in the given source buffer into this buffer. If there are more bytes remaining in the source buffer than in this buffer, that is, if `src.remaining() >`

**remaining()** (p. 808), then no bytes are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies  $n = \text{src.remaining}()$  bytes from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by  $n$ .

**Parameters:**

*src* - the buffer to take bytes from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer for the remaining bytes in the source buffer

**IllegalArgumentException** - If the source buffer is this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

**6.151.3.40** `virtual ByteBuffer& decaf::nio::ByteBuffer::putChar (std::size_t index, char value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException ) [pure virtual]`

Writes one byte containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

**IndexOutOfBoundsException** - If index greater than the buffer's limit minus the size of the type being written.

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteArrayBuffer** (p. 886).

**6.151.3.41** `virtual ByteBuffer& decaf::nio::ByteBuffer::putChar (char value) throw ( BufferOverflowException, ReadOnlyBufferException ) [pure virtual]`

Writes one byte containing the given value, into this buffer at the current position, and then increments the position by one.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 886).

**6.151.3.42** **virtual ByteBuffer& decaf::nio::ByteBuffer::putDouble**  
(**std::size\_t** *index*, **double** *value*) **throw** (  
**lang::exceptions::IndexOutOfBoundsException**,  
**ReadOnlyBufferException**) [pure virtual]

Writes eight bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 886).

**6.151.3.43** **virtual ByteBuffer& decaf::nio::ByteBuffer::putDouble** (**double** *value*)  
**throw** (**BufferOverflowException**, **ReadOnlyBufferException**) [pure  
virtual]

Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 887).

**6.151.3.44** virtual ByteBuffer& decaf::nio::ByteBuffer::putFloat (std::size\_t *index*, float *value*) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException ) [pure virtual]

Writes four bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data  
*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.  
*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 887).

**6.151.3.45** virtual ByteBuffer& decaf::nio::ByteBuffer::putFloat (float *value*) throw ( BufferOverflowException, ReadOnlyBufferException ) [pure virtual]

Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written  
*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 888).

**6.151.3.46** virtual ByteBuffer& decaf::nio::ByteBuffer::putInt (std::size\_t *index*, int *value*) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException ) [pure virtual]

Writes four bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::ByteBuffer` (p. 888).

**6.151.3.47** `virtual ByteBuffer& decaf::nio::ByteBuffer::putInt (int value) throw ( BufferOverflowException, ReadOnlyBufferException )` [pure virtual]

Writes four bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::ByteBuffer` (p. 889).

**6.151.3.48** `virtual ByteBuffer& decaf::nio::ByteBuffer::putLong (std::size_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )` [pure virtual]

Writes eight bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::ByteBuffer` (p. 889).



**6.151.3.49**    `virtual ByteBuffer& decaf::nio::ByteBuffer::putLong (long long value)  
                  throw ( BufferOverflowException, ReadOnlyBufferException )` [pure  
                  virtual]

Writes eight bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::ByteBuffer` (p. 889).

**6.151.3.50**    `virtual ByteBuffer& decaf::nio::ByteBuffer::putShort (std::size_t index,  
                                  short value) throw ( lang::exceptions::IndexOutOfBoundsException,  
                                  ReadOnlyBufferException )` [pure virtual]

Writes two bytes containing the given value, into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the value to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::ByteBuffer` (p. 890).

**6.151.3.51**    `virtual ByteBuffer& decaf::nio::ByteBuffer::putShort (short value)  
                  throw ( BufferOverflowException, ReadOnlyBufferException )` [pure  
                  virtual]

Writes two bytes containing the given value, into this buffer at the current position, and then increments the position by eight.

**Parameters:**

*value* - The value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there are fewer than bytes remaining in this buffer than the size of the data to be written

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ByteBuffer** (p. 890).

### 6.151.3.52 **virtual ByteBuffer\* decaf::nio::ByteBuffer::slice () const** [pure virtual]

Creates a new byte buffer whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **ByteBuffer** (p.913) which the caller owns.

Implemented in **decaf::internal::nio::ByteBuffer** (p. 891).

### 6.151.3.53 **virtual std::string decaf::nio::ByteBuffer::toString () const** [virtual]

**Returns:**

a std::string describing this object

### 6.151.3.54 **static ByteBuffer\* decaf::nio::ByteBuffer::wrap (std::vector< unsigned char > & *buffer*)** [static]

Wraps the passed STL Byte Vector in a **ByteBuffer** (p.913). The new buffer will be backed by the given byte array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new **ByteBuffer** (p.913) that is backed by *buffer*, caller owns.

**6.151.3.55**    `static ByteBuffer* decaf::nio::ByteBuffer::wrap (unsigned  
char * array, std::size_t offset, std::size_t length) throw (  
lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new **ByteBuffer** (p. 913). The new buffer will be backed by the given byte array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

- array* - The array that will back the new buffer
- offset* - The offset of the subarray to be used
- length* - The length of the subarray to be used

**Returns:**

- a new **ByteBuffer** (p. 913) that is backed by `buffer`, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/ByteBuffer.h`

## 6.152 cms::BytesMessage Class Reference

A **BytesMessage** (p. 938) object is used to send a message containing a stream of unsigned bytes.

#include <src/main/cms/BytesMessage.h> Inheritance diagram for cms::BytesMessage:

### Public Member Functions

- virtual **~BytesMessage** ()
- virtual void **setBodyBytes** (const unsigned char \*buffer, std::size\_t numBytes)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*sets the bytes given to the message body.*
- virtual unsigned char \* **getBodyBytes** () const =0 throw ( cms::MessageNotReadableException, cms::CMSEException )  
*Gets the bytes that are contained in this message and returns them in a newly allocated array that becomes the property of the caller.*
- virtual std::size\_t **getBodyLength** () const =0 throw ( cms::MessageNotReadableException, cms::CMSEException )  
*Returns the number of bytes contained in the body of this message.*
- virtual void **reset** ()=0 throw ( cms::MessageFormatException, cms::CMSEException )  
*Puts the message body in read-only mode and repositions the stream of bytes to the beginning.*
- virtual bool **readBoolean** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Boolean from the Bytes message stream.*
- virtual void **writeBoolean** (bool value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a boolean to the bytes message stream as a 1-byte value.*
- virtual unsigned char **readByte** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Byte from the Bytes message stream.*
- virtual void **writeByte** (unsigned char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte to the bytes message stream as a 1-byte value.*
- virtual std::size\_t **readBytes** (std::vector< unsigned char > &value) const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a byte array from the bytes message stream.*
- virtual void **writeBytes** (const std::vector< unsigned char > &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte array to the bytes message stream using the vector size as the number of bytes to write.*

- virtual std::size\_t **readBytes** (unsigned char \*buffer, std::size\_t length) const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a portion of the bytes message stream.*
- virtual void **writeBytes** (const unsigned char \*value, std::size\_t offset, std::size\_t length)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a portion of a byte array to the bytes message stream.*
- virtual char **readChar** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Char from the Bytes message stream.*
- virtual void **writeChar** (char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a char to the bytes message stream as a 1-byte value.*
- virtual float **readFloat** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 32 bit float from the Bytes message stream.*
- virtual void **writeFloat** (float value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a float to the bytes message stream as a 4 byte value.*
- virtual double **readDouble** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 64 bit double from the Bytes message stream.*
- virtual void **writeDouble** (double value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a double to the bytes message stream as a 8 byte value.*
- virtual short **readShort** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 16 bit signed short from the Bytes message stream.*
- virtual void **writeShort** (short value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a signed short to the bytes message stream as a 2 byte value.*
- virtual unsigned short **readUnsignedShort** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 16 bit unsigned short from the Bytes message stream.*
- virtual void **writeUnsignedShort** (unsigned short value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a unsigned short to the bytes message stream as a 2 byte value.*

- virtual int **readInt** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 32 bit signed integer from the Bytes message stream.*
- virtual void **writeInt** (int value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a signed int to the bytes message stream as a 4 byte value.*
- virtual long long **readLong** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a 64 bit long from the Bytes message stream.*
- virtual void **writeLong** (long long value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a long long to the bytes message stream as a 8 byte value.*
- virtual std::string **readString** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads an ASCII String from the Bytes message stream.*
- virtual void **writeString** (const std::string &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes an ASCII String to the Bytes message stream.*
- virtual std::string **readUTF** () const =0 throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads an UTF String from the **BytesMessage** (p. 938) stream.*
- virtual void **writeUTF** (const std::string &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes an UTF String to the **BytesMessage** (p. 938) stream.*
- virtual **BytesMessage** \* **clone** () const =0  
*Clones this message.*

### 6.152.1 Detailed Description

A **BytesMessage** (p. 938) object is used to send a message containing a stream of unsigned bytes. It inherits from the **Message** (p. 2163) interface and adds a bytes message body. The receiver of the message supplies the interpretation of the bytes using the methods added by the **BytesMessage** (p. 938) interface.

The **BytesMessage** (p. 938) methods are based largely on those found in **decaf.io.DataInputStream** (p. 1379) and **decaf.io.DataOutputStream** (p. 1388).

Although the CMS API allows the use of message properties with byte messages, they are typically not used, since the inclusion of properties may affect the format.

The primitive types can be written explicitly using methods for each type. Because the C++ language is more limited when dealing with primitive types the JMS equivalent generic read and write methods that take Java objects cannot be provided in the CMS API.

When the message is first created, and when `clearBody` is called, the body of the message is in write-only mode. After the first call to `reset` has been made, the message body is in read-only mode. After a message has been sent, the client that sent it can retain and modify it without affecting the message that has been sent. The same message object can be sent multiple times. When a message has been received, the provider has called `reset` so that the message body is in read-only mode for the client.

If `clearBody` is called on a message in read-only mode, the message body is cleared and the message is in write-only mode.

If a client attempts to read a message in write-only mode, a **MessageNotReadableException** (p. 2330) is thrown.

If a client attempts to write a message in read-only mode, a **MessageNotWriteableException** (p. 2331) is thrown.

**Since:**

1.0

## 6.152.2 Constructor & Destructor Documentation

**6.152.2.1** `virtual cms::BytesMessage::~~BytesMessage () [inline, virtual]`

## 6.152.3 Member Function Documentation

**6.152.3.1** `virtual BytesMessage* cms::BytesMessage::clone () const [pure virtual]`

Clones this message.

**Returns:**

a deep copy of this message.

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs while cloning the **Message** (p. 2163).

Implements **cms::Message** (p. 2168).

Implemented in **activemq::commands::ActiveMQBytesMessage** (p. 200).

**6.152.3.2** `virtual unsigned char* cms::BytesMessage::getBodyBytes () const throw ( cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Gets the bytes that are contained in this message and returns them in a newly allocated array that becomes the property of the caller. This is a copy of the data contained in this message, changing the value contained in this array has no effect on the data contained in this message.

**Returns:**

pointer to a byte buffer that the call owns upon completion of this method.

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

*MessageNotReadableException* (p. 2330) - If the message is in Write Only Mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 201).

**6.152.3.3** `virtual std::size_t cms::BytesMessage::getBodyLength () const throw ( cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Returns the number of bytes contained in the body of this message.

**Returns:**

number of bytes.

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

*MessageNotReadableException* (p. 2330) - If the message is in Write Only Mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 202).

**6.152.3.4** `virtual bool cms::BytesMessage::readBoolean () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a Boolean from the Bytes message stream.

**Returns:**

boolean value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 202).

**6.152.3.5** `virtual unsigned char cms::BytesMessage::readByte () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a Byte from the Bytes message stream.

**Returns:**

unsigned char value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.



*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 203).

**6.152.3.6** `virtual std::size_t cms::BytesMessage::readBytes (unsigned char *  
buffer, std::size_t length) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSEException ) [pure  
virtual]`

Reads a portion of the bytes message stream. If the length of array value is less than the number of bytes remaining to be read from the stream, the array should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of array value, the bytes should be read into the array. The return value of the total number of bytes read will be less than the length of the array, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

If length is negative, or length is greater than the length of the array value, then an `IndexOutOfBoundsException` is thrown. No bytes will be read from the stream for this exception case.

#### Parameters:

*buffer* the buffer into which the data is read

*length* the number of bytes to read; must be less than or equal to value.length

#### Returns:

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

#### Exceptions:

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 203).

**6.152.3.7** `virtual std::size_t cms::BytesMessage::readBytes (std::vector<  
unsigned char > &value) const throw ( cms::MessageEOFException,  
cms::MessageNotReadableException, cms::CMSEException ) [pure  
virtual]`

Reads a byte array from the bytes message stream. If the length of vector value is less than the number of bytes remaining to be read from the stream, the vector should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of vector value, the bytes should be read into the vector. The return value of the total number of bytes read will be less than the length of the vector, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

**Parameters:**

*value* buffer to place data in

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 204).

**6.152.3.8** `virtual char cms::BytesMessage::readChar () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException ) [pure virtual]`

Reads a Char from the Bytes message stream.

**Returns:**

char value from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 204).

**6.152.3.9** `virtual double cms::BytesMessage::readDouble () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSEException ) [pure virtual]`

Reads a 64 bit double from the Bytes message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 204).

**6.152.3.10** `virtual float cms::BytesMessage::readFloat () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 32 bit float from the Bytes message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 205).

**6.152.3.11** `virtual int cms::BytesMessage::readInt () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 32 bit signed integer from the Bytes message stream.

**Returns:**

int value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 205).

**6.152.3.12** `virtual long long cms::BytesMessage::readLong () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 64 bit long from the Bytes message stream.

**Returns:**

long long value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 205).

**6.152.3.13** `virtual short cms::BytesMessage::readShort () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 16 bit signed short from the Bytes message stream.

**Returns:**

short value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 206).

**6.152.3.14** `virtual std::string cms::BytesMessage::readString () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads an ASCII String from the Bytes message stream.

**Returns:**

String from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 206).

**6.152.3.15** `virtual unsigned short cms::BytesMessage::readUnsignedShort () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 16 bit unsigned short from the Bytes message stream.

**Returns:**

unsigned short value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQBytesMessage** (p. 207).

**6.152.3.16** `virtual std::string cms::BytesMessage::readUTF () const throw ( cms::MessageEOFException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads an UTF String from the **BytesMessage** (p. 938) stream.

**Returns:**

String from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQBytesMessage** (p. 207).

**6.152.3.17** `virtual void cms::BytesMessage::reset () throw ( cms::MessageFormatException, cms::CMSException ) [pure virtual]`

Puts the message body in read-only mode and repositions the stream of bytes to the beginning.

**Exceptions:**

*CMSException* (p. 1031) - If the provider fails to perform the reset operation.

*MessageFormatException* (p. 2278) - If the **Message** (p. 2163) has an invalid format.

Implemented in **activemq::commands::ActiveMQBytesMessage** (p. 207).

**6.152.3.18** `virtual void cms::BytesMessage::setBodyBytes (const unsigned char * buffer, std::size_t numBytes) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

sets the bytes given to the message body.

**Parameters:**

*buffer* Byte Buffer to copy

*numBytes* Number of bytes in Buffer to copy

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

*MessageNotWriteableException* (p. 2331) - if in Read Only Mode.

Implemented in **activemq::commands::ActiveMQBytesMessage** (p. 208).

**6.152.3.19** `virtual void cms::BytesMessage::writeBoolean (bool value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a boolean to the bytes message stream as a 1-byte value. The value true is written as the value (byte)1; the value false is written as the value (byte)0.

**Parameters:**

*value* boolean to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 208).

**6.152.3.20** `virtual void cms::BytesMessage::writeByte (unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a byte to the bytes message stream as a 1-byte value.

**Parameters:**

*value* byte to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 208).

**6.152.3.21** `virtual void cms::BytesMessage::writeBytes (const unsigned char * value, std::size_t offset, std::size_t length) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a portion of a byte array to the bytes message stream. size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

*offset* the initial offset within the byte array

*length* the number of bytes to use

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 209).

**6.152.3.22** `virtual void cms::BytesMessage::writeBytes (const std::vector< unsigned char > & value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a byte array to the bytes message stream using the vector size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 209).

**6.152.3.23** `virtual void cms::BytesMessage::writeChar (char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a char to the bytes message stream as a 1-byte value.

**Parameters:**

*value* char to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 209).

**6.152.3.24** `virtual void cms::BytesMessage::writeDouble (double value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a double to the bytes message stream as a 8 byte value.

**Parameters:**

*value* double to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 210).

**6.152.3.25** `virtual void cms::BytesMessage::writeFloat (float value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a float to the bytes message stream as a 4 byte value.

**Parameters:**

*value* float to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 210).

**6.152.3.26** `virtual void cms::BytesMessage::writeInt (int value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a signed int to the bytes message stream as a 4 byte value.

**Parameters:**

*value* signed int to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 210).

**6.152.3.27** `virtual void cms::BytesMessage::writeLong (long long value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a long long to the bytes message stream as a 8 byte value.

**Parameters:**

*value* signed long long to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.



*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 211).

**6.152.3.28** `virtual void cms::BytesMessage::writeShort (short value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Writes a signed short to the bytes message stream as a 2 byte value.

**Parameters:**

*value* signed short to write to the stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 211).

**6.152.3.29** `virtual void cms::BytesMessage::writeString (const std::string & value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Writes an ASCII String to the Bytes message stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 211).

**6.152.3.30** `virtual void cms::BytesMessage::writeUnsignedShort (unsigned short value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Writes a unsigned short to the bytes message stream as a 2 byte value.

**Parameters:**

*value* unsigned short to write to the stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 212).

**6.152.3.31** `virtual void cms::BytesMessage::writeUTF (const std::string & value)  
throw ( cms::MessageNotWriteableException, cms::CMSException )  
[pure virtual]`

Writes an UTF String to the `BytesMessage` (p. 938) stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of bytes stream has been reached.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 212).

The documentation for this class was generated from the following file:

- `src/main/cms/BytesMessage.h`

## 6.153 activemq::cmsutil::CachedConsumer Class Reference

A cached message consumer contained within a pooled session.

#include <src/main/activemq/cmsutil/CachedConsumer.h> Inheritance diagram for activemq::cmsutil::CachedConsumer:

### Public Member Functions

- **CachedConsumer** (cms::MessageConsumer \*consumer)
- virtual ~**CachedConsumer** ()
- virtual void **close** () throw ( cms::CMSEException )  
*Does nothing - the real producer resource will be closed by the lifecycle manager.*
- virtual cms::Message \* **receive** () throw ( cms::CMSEException )  
*Synchronously Receive a Message.*
- virtual cms::Message \* **receive** (int millisecs) throw ( cms::CMSEException )  
*Synchronously Receive a Message, time out after defined interval.*
- virtual cms::Message \* **receiveNoWait** () throw ( cms::CMSEException )  
*Receive a Message, does not wait if there isn't a new message to read, returns NULL if nothing read.*
- virtual void **setMessageListener** (cms::MessageListener \*listener) throw ( cms::CMSEException )  
*Sets the MessageListener that this class will send notifs on.*
- virtual cms::MessageListener \* **getMessageListener** () const throw ( cms::CMSEException )  
*Gets the MessageListener that this class will send new Message notification events to.*
- virtual std::string **getMessageSelector** () const throw ( cms::CMSEException )  
*Gets this message consumer's message selector expression.*

#### 6.153.1 Detailed Description

A cached message consumer contained within a pooled session.

## 6.153.2 Constructor & Destructor Documentation

**6.153.2.1** `activemq::cmsutil::CachedConsumer::CachedConsumer (cms::MessageConsumer * consumer)` [inline]

**6.153.2.2** `virtual activemq::cmsutil::CachedConsumer::~~CachedConsumer ()` [inline, virtual]

## 6.153.3 Member Function Documentation

**6.153.3.1** `virtual void activemq::cmsutil::CachedConsumer::close () throw (cms::CMSEException)` [inline, virtual]

Does nothing - the real producer resource will be closed by the lifecycle manager.

Implements `cms::Closeable` (p. 1021).

**6.153.3.2** `virtual cms::MessageListener* activemq::cmsutil::CachedConsumer::getMessageListener () const throw (cms::CMSEException)` [inline, virtual]

Gets the MessageListener that this class will send new Message notification events to.

### Returns:

The listener of messages received by this consumer

### Exceptions:

*CMSEException* - If an internal error occurs.

Implements `cms::MessageConsumer` (p. 2215).

**6.153.3.3** `virtual std::string activemq::cmsutil::CachedConsumer::getMessageSelector () const throw (cms::CMSEException)` [inline, virtual]

Gets this message consumer's message selector expression.

### Returns:

This Consumer's selector expression or "".

### Exceptions:

*CMSEException* - If an internal error occurs.

Implements `cms::MessageConsumer` (p. 2215).

**6.153.3.4** `virtual cms::Message* activemq::cmsutil::CachedConsumer::receive (int milliseconds) throw (cms::CMSEException)` [inline, virtual]

Synchronously Receive a Message, time out after defined interval. Returns null if nothing read.

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::MessageConsumer** (p. 2215).

**6.153.3.5** `virtual cms::Message* activemq::cmsutil::CachedConsumer::receive ()  
throw ( cms::CMSEException ) [inline, virtual]`

Synchronously Receive a Message.

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::MessageConsumer** (p. 2216).

**6.153.3.6** `virtual cms::Message* ac-  
tivemq::cmsutil::CachedConsumer::receiveNoWait ()  
throw ( cms::CMSEException ) [inline, virtual]`

Receive a Message, does not wait if there isn't a new message to read, returns NULL if nothing read.

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::MessageConsumer** (p. 2216).

**6.153.3.7** `virtual void activemq::cmsutil::CachedConsumer::setMessageListener  
(cms::MessageListener * listener) throw ( cms::CMSEException )  
[inline, virtual]`

Sets the MessageListener that this class will send notifs on.

**Parameters:**

*listener* The listener of messages received by this consumer.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::MessageConsumer** (p. 2216).

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/CachedConsumer.h`

## 6.154 activemq::cmsutil::CachedProducer Class Reference

A cached message producer contained within a pooled session.

#include <src/main/activemq/cmsutil/CachedProducer.h> Inheritance diagram for activemq::cmsutil::CachedProducer:

### Public Member Functions

- **CachedProducer** (**cms::MessageProducer** \*producer)
- virtual **~CachedProducer** ()
- virtual void **close** () throw ( cms::CMSEException )  
*Does nothing - the real producer resource will be closed by the lifecycle manager.*
- virtual void **send** (**cms::Message** \*message) throw ( cms::CMSEException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (**cms::Message** \*message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSEException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const **cms::Destination** \*destination, **cms::Message** \*message) throw ( cms::CMSEException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const **cms::Destination** \*destination, **cms::Message** \*message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSEException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **setDeliveryMode** (int mode) throw ( cms::CMSEException )  
*Sets the delivery mode for this Producer.*
- virtual int **getDeliveryMode** () const throw ( cms::CMSEException )  
*Gets the delivery mode for this Producer.*
- virtual void **setDisableMessageID** (bool value) throw ( cms::CMSEException )  
*Sets if Message Ids are disabled for this Producer.*
- virtual bool **getDisableMessageID** () const throw ( cms::CMSEException )  
*Gets if Message Ids are disabled for this Producer.*
- virtual void **setDisableMessageTimeStamp** (bool value) throw ( cms::CMSEException )  
*Sets if Message Time Stamps are disabled for this Producer.*
- virtual bool **getDisableMessageTimeStamp** () const throw ( cms::CMSEException )

*Gets if Message Time Stamps are disabled for this Producer.*

- virtual void **setPriority** (int priority) throw ( cms::CMSEException )  
*Sets the Priority that this Producers sends messages at.*
- virtual int **getPriority** () const throw ( cms::CMSEException )  
*Gets the Priority level that this producer sends messages at.*
- virtual void **setTimeToLive** (long long time) throw ( cms::CMSEException )  
*Sets the Time to Live that this Producers sends messages with.*
- virtual long long **getTimeToLive** () const throw ( cms::CMSEException )  
*Gets the Time to Live that this producer sends messages with.*

### 6.154.1 Detailed Description

A cached message producer contained within a pooled session.

### 6.154.2 Constructor & Destructor Documentation

- 6.154.2.1** `activemq::cmsutil::CachedProducer::CachedProducer (cms::MessageProducer * producer) [inline]`
- 6.154.2.2** `virtual activemq::cmsutil::CachedProducer::~~CachedProducer () [inline, virtual]`

### 6.154.3 Member Function Documentation

- 6.154.3.1** `virtual void activemq::cmsutil::CachedProducer::close () throw ( cms::CMSEException ) [inline, virtual]`

Does nothing - the real producer resource will be closed by the lifecycle manager.

Implements `cms::Closeable` (p.1021).

- 6.154.3.2** `virtual int activemq::cmsutil::CachedProducer::getDeliveryMode () const throw ( cms::CMSEException ) [inline, virtual]`

Gets the delivery mode for this Producer.

#### Returns:

The DeliveryMode

#### Exceptions:

*CMSEException* - if an internal error occurs.

Implements `cms::MessageProducer` (p.2333).



**6.154.3.3 virtual bool activemq::cmsutil::CachedProducer::getDisableMessageID () const throw ( cms::CMSEException ) [inline, virtual]**

Gets if Message Ids are disabled for this Producer.

**Returns:**

boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2334).

**6.154.3.4 virtual bool activemq::cmsutil::CachedProducer::getDisableMessageTimeStamp () const throw ( cms::CMSEException ) [inline, virtual]**

Gets if Message Time Stamps are disabled for this Producer.

**Returns:**

boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2334).

**6.154.3.5 virtual int activemq::cmsutil::CachedProducer::getPriority () const throw ( cms::CMSEException ) [inline, virtual]**

Gets the Priority level that this producer sends messages at.

**Returns:**

int based priority level

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2334).

**6.154.3.6 virtual long long activemq::cmsutil::CachedProducer::getTimeToLive () const throw ( cms::CMSEException ) [inline, virtual]**

Gets the Time to Live that this producer sends messages with.

**Returns:**

Time to live value in milliseconds

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2335).

**6.154.3.7** `virtual void activemq::cmsutil::CachedProducer::send (const cms::Destination * destination, cms::Message * message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSEException )` [inline, virtual]

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.

**Parameters:**

*destination* The destination on which to send the message

*message* The message to be sent.

*deliveryMode* The delivery mode to be used.

*priority* The priority for this message.

*timeToLive* The time to live value for this message in milliseconds.

**Exceptions:**

*CMSEException* - if an internal error occurs while sending the message.

*MessageFormatException* - if an Invalid Message is given.

*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.

*UnsupportedOperationException* - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2335).

**6.154.3.8** `virtual void activemq::cmsutil::CachedProducer::send (const cms::Destination * destination, cms::Message * message) throw ( cms::CMSEException )` [inline, virtual]

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

*destination* The destination on which to send the message

*message* the message to be sent.

**Exceptions:**

*CMSEException* - if an internal error occurs while sending the message.

*MessageFormatException* - if an Invalid Message is given.

*InvalidDestinationException* - if a client uses this method with a MessageProducer with an invalid destination.

***UnsupportedOperationException*** - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2335).

**6.154.3.9** **virtual void activemq::cmsutil::CachedProducer::send (cms::Message \* message, int deliveryMode, int priority, long long timeToLive) throw ( cms::CMSEException )** [inline, virtual]

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.

**Parameters:**

**message** The message to be sent.

**deliveryMode** The delivery mode to be used.

**priority** The priority for this message.

**timeToLive** The time to live value for this message in milliseconds.

**Exceptions:**

***CMSEException*** - if an internal error occurs while sending the message.

***MessageFormatException*** - if an Invalid Message is given.

***InvalidDestinationException*** - if a client uses this method with a MessageProducer with an invalid destination.

***UnsupportedOperationException*** - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2336).

**6.154.3.10** **virtual void activemq::cmsutil::CachedProducer::send (cms::Message \* message) throw ( cms::CMSEException )** [inline, virtual]

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

**message** The message to be sent.

**Exceptions:**

***CMSEException*** - if an internal error occurs while sending the message.

***MessageFormatException*** - if an Invalid Message is given.

***InvalidDestinationException*** - if a client uses this method with a MessageProducer with an invalid destination.

***UnsupportedOperationException*** - if a client uses this method with a MessageProducer that did not specify a destination at creation time.

Implements **cms::MessageProducer** (p. 2336).

**6.154.3.11** `virtual void activemq::cmsutil::CachedProducer::setDeliveryMode (int mode) throw ( cms::CMSException ) [inline, virtual]`

Sets the delivery mode for this Producer.

**Parameters:**

*mode* The DeliveryMode

**Exceptions:**

*CMSException* - if an internal error occurs.

Implements `cms::MessageProducer` (p. 2337).

**6.154.3.12** `virtual void activemq::cmsutil::CachedProducer::setDisableMessageID (bool value) throw ( cms::CMSException ) [inline, virtual]`

Sets if Message Ids are disabled for this Producer.

**Parameters:**

*value* boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSException* - if an internal error occurs.

Implements `cms::MessageProducer` (p. 2337).

**6.154.3.13** `virtual void activemq::cmsutil::CachedProducer::setDisableMessageTimeStamp (bool value) throw ( cms::CMSException ) [inline, virtual]`

Sets if Message Time Stamps are disabled for this Producer.

**Parameters:**

*value* - boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSException* - if an internal error occurs.

Implements `cms::MessageProducer` (p. 2337).

**6.154.3.14** `virtual void activemq::cmsutil::CachedProducer::setPriority (int priority) throw ( cms::CMSException ) [inline, virtual]`

Sets the Priority that this Producers sends messages at.

**Parameters:**

*priority* int value for Priority level

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2338).

**6.154.3.15 virtual void activemq::cmsutil::CachedProducer::setTimeToLive (long long *time*) throw ( cms::CMSEException ) [inline, virtual]**

Sets the Time to Live that this Producers sends messages with. This value will be used if the time to live is not specified via the send method.

**Parameters:**

*time* default time to live value in milliseconds

**Exceptions:**

*CMSEException* - if an internal error occurs.

Implements **cms::MessageProducer** (p. 2338).

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/CachedProducer.h`

## 6.155 decaf::util::concurrent::Callable< V > Class Template Reference

A task that returns a result and may throw an exception.

```
#include <src/main/decaf/util/concurrent/Callable.h>
```

### Public Member Functions

- virtual `~Callable ()`
- virtual `V call ()=0 throw ( decaf::lang::Exception )`  
*Computes a result, or throws an exception if unable to do so.*

### 6.155.1 Detailed Description

```
template<typename V> class decaf::util::concurrent::Callable< V >
```

A task that returns a result and may throw an exception. Implementors define a single method with no arguments called `call`. This interface differs from the `Runnable` interface in that a **Callable** (p. 964) object can return a result and is allowed to throw an exceptions from its `call` method.

The `Executors` class contains utility methods to convert from other common forms to **Callable** (p. 964) classes.

Since:

1.0

### 6.155.2 Constructor & Destructor Documentation

**6.155.2.1** `template<typename V > virtual decaf::util::concurrent::Callable< V >::~~Callable () [inline, virtual]`

### 6.155.3 Member Function Documentation

**6.155.3.1** `template<typename V > virtual V decaf::util::concurrent::Callable< V >::call () throw ( decaf::lang::Exception ) [pure virtual]`

Computes a result, or throws an exception if unable to do so.

Returns:

Computed Result.

Exceptions:

*Exception* If unable to compute a result.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Callable.h`

## 6.156 decaf::util::concurrent::CancellationException Class Reference

#include <src/main/decaf/util/concurrent/CancellationException.h> Inheritance diagram for decaf::util::concurrent::CancellationException:

### Public Member Functions

- **CancellationException** () throw ()  
*Default Constructor.*
- **CancellationException** (const decaf::lang::Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CancellationException** (const CancellationException &ex) throw ()  
*Copy Constructor.*
- **CancellationException** (const std::exception \*cause) throw ()  
*Constructor.*
- **CancellationException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **CancellationException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CancellationException** \* clone () const  
*Clones this exception.*
- virtual ~**CancellationException** () throw ()

### 6.156.1 Constructor & Destructor Documentation

**6.156.1.1 decaf::util::concurrent::CancellationException::CancellationException () throw () [inline]**

Default Constructor.

**6.156.1.2 decaf::util::concurrent::CancellationException::CancellationException (const decaf::lang::Exception & ex) throw () [inline]**

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

#### 6.156.1.3 `decaf::util::concurrent::CancellationException::CancellationException` (`const CancellationException & ex`) throw () [inline]

Copy Constructor.

##### Parameters:

*ex* - The Exception to copy in this new instance.

References `decaf::lang::Exception::Exception()`.

#### 6.156.1.4 `decaf::util::concurrent::CancellationException::CancellationException` (`const std::exception * cause`) throw () [inline]

Constructor.

##### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

#### 6.156.1.5 `decaf::util::concurrent::CancellationException::CancellationException` (`const char * file`, `const int lineNumber`, `const char * msg`, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

##### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*msg* - The message to report

... - list of primitives that are formatted into the message

#### 6.156.1.6 `decaf::util::concurrent::CancellationException::CancellationException` (`const char * file`, `const int lineNumber`, `const std::exception * cause`, `const char * msg`, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

##### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*cause* - The exception that was the cause for this one to be thrown.

*msg* - The message to report

... - list of primitives that are formatted into the message



**6.156.1.7**    **virtual**  
          **decaf::util::concurrent::CancellationException::~~CancellationException ()**  
          **throw ()**    [inline, virtual]

## 6.156.2 Member Function Documentation

**6.156.2.1**    **virtual CancellationException\* de-**  
          **caf::util::concurrent::CancellationException::clone () const**  
          [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new instance of an exception that is a clone of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**CancellationException.h**

## 6.157 decaf::security::cert::Certificate Class Reference

Base interface for all identity certificates.

#include <src/main/decaf/security/cert/Certificate.h> Inheritance diagram for decaf::security::cert::Certificate:

### Public Member Functions

- virtual **~Certificate** ()
- virtual bool **equals** (const **Certificate** &cert) const =0  
*Compares the encoded form of the two certificates.*
- virtual void **getEncoded** (std::vector< unsigned char > &output) const =0 throw ( CertificateEncodingException )  
*Provides the encoded form of this certificate.*
- virtual std::string **getType** () const =0  
*Returns the type of this certificate.*
- virtual **PublicKey** \* **getPublicKey** ()=0  
*Gets the public key of this certificate.*
- virtual const **PublicKey** \* **getPublicKey** () const =0  
*Gets the public key of this certificate.*
- virtual void **verify** (const **PublicKey** &publicKey) const =0 throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException )  
*Verifies that this certificate was signed with the private key that corresponds to the specified public key.*
- virtual void **verify** (const **PublicKey** &publicKey, const std::string &sigProvider) const =0 throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException )  
*Verifies that this certificate was signed with the private key that corresponds to the specified public key.*
- virtual std::string **toString** () const =0  
*Returns a string representation of this certificate.*

### 6.157.1 Detailed Description

Base interface for all identity certificates.

## 6.157.2 Constructor & Destructor Documentation

**6.157.2.1** `virtual decaf::security::cert::Certificate::~~Certificate () [inline, virtual]`

## 6.157.3 Member Function Documentation

**6.157.3.1** `virtual bool decaf::security::cert::Certificate::equals (const Certificate & cert) const [pure virtual]`

Compares the encoded form of the two certificates.

### Parameters:

*cert* The certificate to be tested for equality with this certificate.

### Returns:

true if the given certificate is equal to this certificate.

**6.157.3.2** `virtual void decaf::security::cert::Certificate::getEncoded (std::vector< unsigned char > & output) const throw ( CertificateEncodingException ) [pure virtual]`

Provides the encoded form of this certificate.

### Parameters:

*output* Receives the encoded form of this certificate.

### Exceptions:

*CertificateEncodingException* (p. 972) if an encoding error occurs

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate` (p. 2444).

**6.157.3.3** `virtual const PublicKey* decaf::security::cert::Certificate::getPublicKey () const [pure virtual]`

Gets the public key of this certificate.

### Returns:

the public key

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate` (p. 2445).

**6.157.3.4** `virtual PublicKey* decaf::security::cert::Certificate::getPublicKey () [pure virtual]`

Gets the public key of this certificate.

**Returns:**

the public key

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate` (p. 2445).

**6.157.3.5** `virtual std::string decaf::security::cert::Certificate::getType () const`  
[pure virtual]

Returns the type of this certificate.

**Returns:**

the type of this certificate

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate` (p. 2446).

**6.157.3.6** `virtual std::string decaf::security::cert::Certificate::toString () const`  
[pure virtual]

Returns a string representation of this certificate.

**Returns:**

a string representation of this certificate

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate` (p. 2446).

**6.157.3.7** `virtual void decaf::security::cert::Certificate::verify (const  
PublicKey & publicKey, const std::string & sigProvider) const  
throw ( NoSuchAlgorithmException, InvalidKeyException,  
NoSuchProviderException, SignatureException, CertificateException)`  
[pure virtual]

Verifies that this certificate was signed with the private key that corresponds to the specified public key. Uses the verification engine of the specified provider.

**Parameters:**

*publicKey* The public key used to carry out the validation.

*sigProvider* The name of the signature provider

**Exceptions:**

*NoSuchAlgorithmException* (p. 2420) - on unsupported signature algorithms.

*InvalidKeyException* (p. 1810) - on incorrect key.

*NoSuchProviderException* (p. 2426) - if there's no default provider.

*SignatureException* (p. 2957) - on signature errors.

*CertificateException* (p. 974) - on encoding errors.

**6.157.3.8** virtual void decaf::security::cert::Certificate::verify (const PublicKey & *publicKey*) const throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException) [pure virtual]

Verifies that this certificate was signed with the private key that corresponds to the specified public key.

**Parameters:**

*publicKey* The public key used to carry out the validation.

**Exceptions:**

*NoSuchAlgorithmException* (p. 2420) - on unsupported signature algorithms.

*InvalidKeyException* (p. 1810) - on incorrect key.

*NoSuchProviderException* (p. 2426) - if there's no default provider.

*SignatureException* (p. 2957) - on signature errors.

*CertificateException* (p. 974) - on encoding errors.

The documentation for this class was generated from the following file:

- src/main/decaf/security/cert/**Certificate.h**

## 6.158 decaf::security::cert::CertificateEncodingException Class Reference

#include <src/main/decaf/security/cert/CertificateEncodingException.h> Inheritance diagram for decaf::security::cert::CertificateEncodingException:

### Public Member Functions

- **CertificateEncodingException** () throw ()  
*Default Constructor.*
- **CertificateEncodingException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CertificateEncodingException** (const **CertificateEncodingException** &ex) throw ()  
*Copy Constructor.*
- **CertificateEncodingException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CertificateEncodingException** \* clone () const  
*Clones this exception.*
- virtual ~**CertificateEncodingException** () throw ()

### 6.158.1 Constructor & Destructor Documentation

**6.158.1.1 decaf::security::cert::CertificateEncodingException::CertificateEncodingException () throw () [inline]**

Default Constructor.

**6.158.1.2 decaf::security::cert::CertificateEncodingException::CertificateEncodingException (const Exception & ex) throw () [inline]**

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.158.1.3 decaf::security::cert::CertificateEncodingException::CertificateEncodingException (const CertificateEncodingException & ex) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.158.1.4** `decaf::security::cert::CertificateEncodingException::CertificateEncodingException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.158.1.5** `virtual decaf::security::cert::CertificateEncodingException::~CertificateEncodingException () throw () [inline, virtual]`

**6.158.2 Member Function Documentation**

**6.158.2.1** `virtual CertificateEncodingException* decaf::security::cert::CertificateEncodingException::clone () const [inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::cert::CertificateException` (p.975).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/CertificateEncodingException.h`

## 6.159 decaf::security::cert::CertificateException Class Reference

#include <src/main/decaf/security/cert/CertificateException.h> Inheritance diagram for decaf::security::cert::CertificateException:

### Public Member Functions

- **CertificateException** () throw ()  
*Default Constructor.*
- **CertificateException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CertificateException** (const **CertificateException** &ex) throw ()  
*Copy Constructor.*
- **CertificateException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CertificateException** \* clone () const  
*Clones this exception.*
- virtual ~**CertificateException** () throw ()

### 6.159.1 Constructor & Destructor Documentation

#### 6.159.1.1 decaf::security::cert::CertificateException::CertificateException () throw () [inline]

Default Constructor.

#### 6.159.1.2 decaf::security::cert::CertificateException::CertificateException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

#### 6.159.1.3 decaf::security::cert::CertificateException::CertificateException (const CertificateException & ex) throw () [inline]

Copy Constructor.



**Parameters:**

*ex* An exception that should become this type of Exception

**6.159.1.4** `decaf::security::cert::CertificateException::CertificateException (const char * file, const int lineNumber, const char * msg, ...) throw ()`  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.159.1.5** `virtual decaf::security::cert::CertificateException::~~CertificateException () throw ()` [inline, virtual]

**6.159.2 Member Function Documentation**

**6.159.2.1** `virtual CertificateException* decaf::security::cert::CertificateException::clone () const`  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::GeneralSecurityException` (p. 1708).

Reimplemented in `decaf::security::cert::CertificateEncodingException` (p. 973), `decaf::security::cert::CertificateExpiredException` (p. 977), `decaf::security::cert::CertificateNotYetValidException` (p. 979), and `decaf::security::cert::CertificateParsingException` (p. 981).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/CertificateException.h`

## 6.160 decaf::security::cert::CertificateExpiredException Class Reference

#include <src/main/decaf/security/cert/CertificateExpiredException.h>Inheritance diagram for decaf::security::cert::CertificateExpiredException:

### Public Member Functions

- **CertificateExpiredException** () throw ()  
*Default Constructor.*
- **CertificateExpiredException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CertificateExpiredException** (const **CertificateExpiredException** &ex) throw ()  
*Copy Constructor.*
- **CertificateExpiredException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CertificateExpiredException** \* clone () const  
*Clones this exception.*
- virtual ~**CertificateExpiredException** () throw ()

### 6.160.1 Constructor & Destructor Documentation

#### 6.160.1.1 decaf::security::cert::CertificateExpiredException::CertificateExpiredException () throw () [inline]

Default Constructor.

#### 6.160.1.2 decaf::security::cert::CertificateExpiredException::CertificateExpiredException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

#### 6.160.1.3 decaf::security::cert::CertificateExpiredException::CertificateExpiredException (const CertificateExpiredException & ex) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.160.1.4** `decaf::security::cert::CertificateExpiredException::CertificateExpiredException (const char * file, const int lineNumber, const char * msg, ...) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.160.1.5** `virtual decaf::security::cert::CertificateExpiredException::~~CertificateExpiredException () throw ()` [inline, virtual]

**6.160.2 Member Function Documentation**

**6.160.2.1** `virtual CertificateExpiredException* decaf::security::cert::CertificateExpiredException::clone () const` [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::cert::CertificateException` (p.975).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/CertificateExpiredException.h`

## 6.161 decaf::security::cert::CertificateNotYetValidException Class Reference

#include <src/main/decaf/security/cert/CertificateNotYetValidException.h> Inheritance diagram for decaf::security::cert::CertificateNotYetValidException:

### Public Member Functions

- **CertificateNotYetValidException** () throw ()  
*Default Constructor.*
- **CertificateNotYetValidException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CertificateNotYetValidException** (const **CertificateNotYetValidException** &ex) throw ()  
*Copy Constructor.*
- **CertificateNotYetValidException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CertificateNotYetValidException** \* clone () const  
*Clones this exception.*
- virtual ~**CertificateNotYetValidException** () throw ()

### 6.161.1 Constructor & Destructor Documentation

**6.161.1.1 decaf::security::cert::CertificateNotYetValidException::CertificateNotYetValidException () throw () [inline]**

Default Constructor.

**6.161.1.2 decaf::security::cert::CertificateNotYetValidException::CertificateNotYetValidException (const Exception & ex) throw () [inline]**

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.161.1.3 decaf::security::cert::CertificateNotYetValidException::CertificateNotYetValidException (const CertificateNotYetValidException & ex) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.161.1.4** `decaf::security::cert::CertificateNotYetValidException::CertificateNotYetValidException (const char * file, const int lineNumber, const char * msg, ...) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.161.1.5** `virtual decaf::security::cert::CertificateNotYetValidException::~~CertificateNotYetValidException () throw ()` [inline, virtual]

**6.161.2 Member Function Documentation**

**6.161.2.1** `virtual CertificateNotYetValidException* decaf::security::cert::CertificateNotYetValidException::clone () const` [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::cert::CertificateException` (p.975).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/CertificateNotYetValidException.h`

## 6.162 decaf::security::cert::CertificateParsingException

### Class Reference

#include <src/main/decaf/security/cert/CertificateParsingException.h> Inheritance diagram for decaf::security::cert::CertificateParsingException:

#### Public Member Functions

- **CertificateParsingException** () throw ()  
*Default Constructor.*
- **CertificateParsingException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **CertificateParsingException** (const **CertificateParsingException** &ex) throw ()  
*Copy Constructor.*
- **CertificateParsingException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **CertificateParsingException** \* clone () const  
*Clones this exception.*
- virtual ~**CertificateParsingException** () throw ()

#### 6.162.1 Constructor & Destructor Documentation

##### 6.162.1.1 decaf::security::cert::CertificateParsingException::CertificateParsingException () throw () [inline]

Default Constructor.

##### 6.162.1.2 decaf::security::cert::CertificateParsingException::CertificateParsingException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

##### 6.162.1.3 decaf::security::cert::CertificateParsingException::CertificateParsingException (const CertificateParsingException & ex) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.162.1.4** `decaf::security::cert::CertificateParsingException::CertificateParsingException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.162.1.5** `virtual decaf::security::cert::CertificateParsingException::~~CertificateParsingException () throw () [inline, virtual]`

**6.162.2 Member Function Documentation**

**6.162.2.1** `virtual CertificateParsingException* decaf::security::cert::CertificateParsingException::clone () const [inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::cert::CertificateException` (p.975).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/CertificateParsingException.h`

## 6.163 decaf::lang::Character Class Reference

#include <src/main/decaf/lang/Character.h> Inheritance diagram for decaf::lang::Character:

### Public Member Functions

- **Character** (char value)
- virtual int **compareTo** (const **Character** &c) const  
*Compares this **Character** (p. 982) instance with another.*
- virtual bool **operator==** (const **Character** &c) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Character** &c) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const char &c) const  
*Compares this **Character** (p. 982) instance with a char type.*
- virtual bool **operator==** (const char &c) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const char &c) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- bool **equals** (const **Character** &c) const
- bool **equals** (const char &c) const
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*



## Static Public Member Functions

- static **Character** **valueOf** (char value)  
*Returns a **Character** (p. 982) instance representing the specified char value.*
- static bool **isWhitespace** (char c)  
*Indicates whether or not the given character is considered whitespace.*
- static bool **isDigit** (char c)  
*Indicates whether or not the given character is a digit.*
- static bool **isLowerCase** (char c)  
*Indicates whether or not the given character is a lower case character.*
- static bool **isUpperCase** (char c)  
*Indicates whether or not the given character is a upper case character.*
- static bool **isLetter** (char c)  
*Indicates whether or not the given character is a letter.*
- static bool **isLetterOrDigit** (char c)  
*Indicates whether or not the given character is either a letter or a digit.*
- static bool **isISOControl** (char c)  
*Answers whether the character is an ISO control character, which is a char that lays in the range of 0 to 1f and 7f to 9f.*
- static int **digit** (char c, int radix)  
*Returns the numeric value of the character ch in the specified radix.*

## Static Public Attributes

- static const int **MIN\_RADIX** = 2  
*The minimum radix available for conversion to and from strings.*
- static const int **MAX\_RADIX** = 36  
*The maximum radix available for conversion to and from strings.*
- static const char **MIN\_VALUE** = (char)0x7F  
*The minimum value that a signed char can take on.*
- static const char **MAX\_VALUE** = (char)0x80  
*The maximum value that a signed char can take on.*
- static const int **SIZE** = 8  
*The size of the primitive charactor in bits.*

## 6.163.1 Constructor & Destructor Documentation

### 6.163.1.1 `decaf::lang::Character::Character (char value)`

#### Parameters:

*value* - char to wrap.

## 6.163.2 Member Function Documentation

### 6.163.2.1 `virtual unsigned char decaf::lang::Character::byteValue () const [inline, virtual]`

Answers the byte value which the receiver represents.

#### Returns:

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2432).

### 6.163.2.2 `virtual int decaf::lang::Character::compareTo (const char & c) const [inline, virtual]`

Compares this **Character** (p. 982) instance with a char type.

#### Parameters:

*c* - the char instance to be compared

#### Returns:

zero if this object represents the same char value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< char >` (p. 1083).

### 6.163.2.3 `virtual int decaf::lang::Character::compareTo (const Character & c) const [inline, virtual]`

Compares this **Character** (p. 982) instance with another.

#### Parameters:

*c* - the **Character** (p. 982) instance to be compared

#### Returns:

zero if this object represents the same char value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< Character >` (p. 1083).

**6.163.2.4 static int decaf::lang::Character::digit (char *c*, int *radix*) [static]**

Returns the numeric value of the character *ch* in the specified radix. If the radix is not in the range `MIN_RADIX <= radix <= MAX_RADIX` or if the value of *ch* is not a valid digit in the specified radix, -1 is returned. A character is a valid digit if at least one of the following is true:

\* The method `isDigit` is true of the character and the single-character decomposition is less than the specified radix. In this case the decimal digit value is returned. \* The character is one of the uppercase Latin letters 'A' through 'Z' and its code is less than `radix + 'A' - 10`. In this case, `ch - 'A' + 10` is returned. \* The character is one of the lowercase Latin letters 'a' through 'z' and its code is less than `radix + 'a' - 10`. In this case, `ch - 'a' + 10` is returned.

**Parameters:**

*c* - the char to be converted  
*radix* - the radix of the number

**Returns:**

the numeric value of the number represented in the given radix

**6.163.2.5 virtual double decaf::lang::Character::doubleValue () const [inline, virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.163.2.6 bool decaf::lang::Character::equals (const char & *c*) const [inline, virtual]****Returns:**

true if the two **Character** have the same value.

Implements **decaf::lang::Comparable< char >** (p. 1084).

**6.163.2.7 bool decaf::lang::Character::equals (const Character & *c*) const [inline, virtual]****Returns:**

true if the two **Character** (p. 982) Objects have the same value.

Implements **decaf::lang::Comparable< Character >** (p. 1084).

**6.163.2.8 virtual float decaf::lang::Character::floatValue () const [inline, virtual]**

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.163.2.9** `virtual int decaf::lang::Character::intValue () const [inline, virtual]`

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.163.2.10** `static bool decaf::lang::Character::isDigit (char c) [inline, static]`

Indicates whether or not the given character is a digit.

**6.163.2.11** `static bool decaf::lang::Character::isISOControl (char c) [inline, static]`

Answers whether the character is an ISO control character, which is a char that lays in the range of 0 to 1f and 7f to 9f.

**Parameters:**

*c* - the character, including supplementary characters

**Returns:**

true if the char is an ISO control character

**6.163.2.12** `static bool decaf::lang::Character::isLetter (char c) [inline, static]`

Indicates whether or not the given character is a letter.

**6.163.2.13** `static bool decaf::lang::Character::isLetterOrDigit (char c) [inline, static]`

Indicates whether or not the given character is either a letter or a digit.

**6.163.2.14** `static bool decaf::lang::Character::isLowerCase (char c) [inline, static]`

Indicates whether or not the given character is a lower case character.

**6.163.2.15** `static bool decaf::lang::Character::isUpperCase (char c) [inline, static]`

Indicates whether or not the given character is a upper case character.

**6.163.2.16** `static bool decaf::lang::Character::isWhitespace (char c) [inline, static]`

Indicates whether or not the given character is considered whitespace.

**6.163.2.17** `virtual long long decaf::lang::Character::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.163.2.18** `virtual bool decaf::lang::Character::operator< (const char & c) const [inline, virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< char >** (p. 1084).

**6.163.2.19** `virtual bool decaf::lang::Character::operator< (const Character & c) const [inline, virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Character >** (p. 1084).

**6.163.2.20** `virtual bool decaf::lang::Character::operator== (const char & c) const [inline, virtual]`

Compares equality between this object and the one passed.

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< char >** (p. 1085).

**6.163.2.21** **virtual bool decaf::lang::Character::operator== (const Character & c)**  
**const** [inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*c* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Character >** (p. 1085).

**6.163.2.22** **virtual short decaf::lang::Character::shortValue () const** [inline, virtual]

Answers the short value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from **decaf::lang::Number** (p. 2434).

**6.163.2.23** **std::string decaf::lang::Character::toString () const**

**Returns:**

this **Character** (p. 982) Object as a String Representation

**6.163.2.24** **static Character decaf::lang::Character::valueOf (char value)** [inline, static]

Returns a **Character** (p. 982) instance representing the specified char value.

**Parameters:**

*value* - the primitive char to wrap.

**Returns:**

a new Character instance that wraps this value.

### 6.163.3 Field Documentation

**6.163.3.1** `const int decaf::lang::Character::MAX_RADIX = 36` [static]

The maximum radix available for conversion to and from strings.

**6.163.3.2** `const char decaf::lang::Character::MAX_VALUE = (char)0x80` [static]

The maximum value that a signed char can take on.

**6.163.3.3** `const int decaf::lang::Character::MIN_RADIX = 2` [static]

The minimum radix available for conversion to and from strings.

**6.163.3.4** `const char decaf::lang::Character::MIN_VALUE = (char)0x7F` [static]

The minimum value that a signed char can take on.

**6.163.3.5** `const int decaf::lang::Character::SIZE = 8` [static]

The size of the primitive character in bits.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Character.h`

## 6.164 decaf::internal::nio::CharArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/CharArrayBuffer.h> Inheritance diagram for decaf::internal::nio::CharArrayBuffer:

### Public Member Functions

- **CharArrayBuffer** (std::size\_t capacity, bool **readOnly**=false)
 

*Creates a **CharArrayBuffer** (p. 990) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **CharArrayBuffer** (char \*array, std::size\_t **offset**, std::size\_t capacity, bool **readOnly**=false) throw ( decaf::lang::exceptions::NullPointerException )
 

*Creates a **CharArrayBuffer** (p. 990) object that wraps the given array.*
- **CharArrayBuffer** (ByteArrayPerspective &array, std::size\_t **offset**, std::size\_t length, bool **readOnly**=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )
 

*Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset.*
- **CharArrayBuffer** (const **CharArrayBuffer** &other)
 

*Create a **CharArrayBuffer** (p. 990) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~**CharArrayBuffer** ()
- virtual char \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )
 

*Returns the character array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )
 

*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual CharBuffer \* **asReadOnlyBuffer** () const
 

*Creates a new, read-only char buffer that shares this buffer's content.*
- virtual CharBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )
 

*Compacts this buffer.*
- virtual CharBuffer \* **duplicate** ()
 

*Creates a new char buffer that shares this buffer's content.*
- virtual char **get** () throw ( decaf::nio::BufferUnderflowException )
 

*Relative get method.*
- virtual char **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )



*Absolute get method.*

- virtual bool **hasArray** () const  
*Tells whether or not this buffer is backed by an accessible char array.*
- virtual bool **isReadOnly** () const  
*Tells whether or not this buffer is read-only.*
- virtual CharBuffer & **put** (char value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )  
*Writes the given char into this buffer at the current position, and then increments the position.*
- virtual CharBuffer & **put** (std::size\_t index, char value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )  
*Writes the given char into this buffer at the given index.*
- virtual CharBuffer \* **slice** () const  
*Creates a new CharBuffer whose content is a shared subsequence of this buffer's content.*
- virtual lang::CharSequence \* **subSequence** (std::size\_t start, std::size\_t end) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a new character buffer that represents the specified subsequence of this buffer, relative to the current position.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)  
*Sets this **ByteArrayBuffer** (p. 870) as Read-Only.*

## Protected Attributes

- bool **readOnly**
- internal::nio::ByteArrayPerspective \* **\_array**
- std::size\_t **offset**

### 6.164.1 Constructor & Destructor Documentation

#### 6.164.1.1 decaf::internal::nio::CharArrayBuffer::CharArrayBuffer (std::size\_t *capacity*, bool *readOnly* = false)

Creates a **CharArrayBuffer** (p. 990) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

#### Parameters:

- capacity* - size of the array, this is the limit we read and write to.
- readOnly* - should this buffer be read-only, default as false

### 6.164.1.2 `decaf::internal::nio::CharArrayBuffer::CharArrayBuffer (char * array, std::size_t offset, std::size_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )`

Creates a **CharArrayBuffer** (p. 990) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

*array* - array to wrap

*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

### 6.164.1.3 `decaf::internal::nio::CharArrayBuffer::CharArrayBuffer (ByteArrayPerspective & array, std::size_t offset, std::size_t length, bool readOnly = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )`

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset. The capacity and limit of the new **CharArrayBuffer** (p. 990) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteArrayPerspective** (p. 908) to wrap

*offset* - the offset into array where the buffer starts

*length* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

### 6.164.1.4 `decaf::internal::nio::CharArrayBuffer::CharArrayBuffer (const CharArrayBuffer & other)`

Create a **CharArrayBuffer** (p. 990) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **CharArrayBuffer** (p. 990) this one is to mirror.

**6.164.1.5** virtual decaf::internal::nio::CharArrayBuffer::~~CharArrayBuffer ()  
[virtual]

## 6.164.2 Member Function Documentation

**6.164.2.1** virtual char\* decaf::internal::nio::CharArrayBuffer::array ()  
throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]

Returns the character array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the hasArray method before invoking this method in order to ensure that this buffer has an accessible backing array.

### Returns:

the array that backs this Buffer

### Exceptions:

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements decaf::nio::CharBuffer (p. 1003).

**6.164.2.2** virtual std::size\_t decaf::internal::nio::CharArrayBuffer::arrayOffset  
( ) throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the hasArray method before invoking this method in order to ensure that this buffer has an accessible backing array.

### Returns:

The offset into the backing array where index zero starts.

### Exceptions:

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements decaf::nio::CharBuffer (p. 1003).

**6.164.2.3** virtual CharBuffer\* de-  
caf::internal::nio::CharArrayBuffer::asReadOnlyBuffer ()  
const [virtual]

Creates a new, read-only char buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the duplicate method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only char buffer which the caller then owns.

Implements **decaf::nio::CharBuffer** (p. 1003).

**6.164.2.4 virtual CharBuffer& decaf::internal::nio::CharArrayBuffer::compact ()  
throw ( decaf::nio::ReadOnlyBufferException ) [virtual]**

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this CharBuffer

**Exceptions:**

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::CharBuffer** (p. 1004).

**6.164.2.5 virtual CharBuffer\* decaf::internal::nio::CharArrayBuffer::duplicate ()  
[virtual]**

Creates a new char buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new char Buffer which the caller owns.

Implements **decaf::nio::CharBuffer** (p. 1005).

**6.164.2.6 virtual char decaf::internal::nio::CharArrayBuffer::get (std::size\_t index)  
const throw ( lang::exceptions::IndexOutOfBoundsException ) [virtual]**

Absolute get method. Reads the char at the given index.

**Parameters:**

*index* - the index in the Buffer where the char is to be read

**Returns:**

the char that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::CharBuffer** (p. 1006).

#### 6.164.2.7 virtual char decaf::internal::nio::CharArrayBuffer::get () throw ( decaf::nio::BufferUnderflowException ) [virtual]

Relative get method. Reads the character at this buffer's current position, and then increments the position.

**Returns:**

the char at the current position

**Exceptions:**

*BufferUnderflowException* if there no more data to return

Implements **decaf::nio::CharBuffer** (p. 1006).

#### 6.164.2.8 virtual bool decaf::internal::nio::CharArrayBuffer::hasArray () const [inline, virtual]

Tells whether or not this buffer is backed by an accessible char array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements **decaf::nio::CharBuffer** (p. 1007).

#### 6.164.2.9 virtual bool decaf::internal::nio::CharArrayBuffer::isReadOnly () const [inline, virtual]

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::Buffer** (p. 806).

#### 6.164.2.10 virtual CharBuffer& decaf::internal::nio::CharArrayBuffer::put (std::size\_t index, char value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes the given char into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data  
*value* - the char to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::CharBuffer** (p. 1009).

**6.164.2.11** `virtual CharBuffer& decaf::internal::nio::CharArrayBuffer::put (char value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given char into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the char value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::CharBuffer** (p. 1009).

**6.164.2.12** `virtual void decaf::internal::nio::CharArrayBuffer::setReadOnly (bool value) [inline, protected, virtual]`

Sets this **ByteBuffer** (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.164.2.13** `virtual CharBuffer* decaf::internal::nio::CharArrayBuffer::slice () const [virtual]`

Creates a new CharBuffer whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

#### Returns:

the newly create CharBuffer which the caller owns.

Implements **decaf::nio::CharBuffer** (p. 1011).

**6.164.2.14** `virtual lang::CharSequence* decaf::internal::nio::CharArrayBuffer::subSequence (std::size_t start, std::size_t end) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Creates a new character buffer that represents the specified subsequence of this buffer, relative to the current position. The new buffer will share this buffer's content; that is, if the content of this buffer is mutable then modifications to one buffer will cause the other to be modified. The new buffer's capacity will be that of this buffer, its position will be **position()** (p. 807) + start, and its limit will be **position()** (p. 807) + end. The new Buffer will be read-only if, and only if, this buffer is read-only.

#### Parameters:

- start** - The index, relative to the current position, of the first character in the subsequence; must be non-negative and no larger than **remaining()** (p. 808)
- end** - The index, relative to the current position, of the character following the last character in the subsequence; must be no smaller than start and no larger than **remaining()** (p. 808)

#### Returns:

The new character buffer, caller owns

#### Exceptions:

**IndexOutOfBoundsException** - If the preconditions on start and end fail

Implements **decaf::nio::CharBuffer** (p. 1012).

### 6.164.3 Field Documentation

**6.164.3.1** `internal::nio::ByteArrayPerspective* decaf::internal::nio::CharArrayBuffer::_array [protected]`

**6.164.3.2** `std::size_t decaf::internal::nio::CharArrayBuffer::offset [protected]`

**6.164.3.3** `bool decaf::internal::nio::CharArrayBuffer::readOnly [protected]`

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/CharArrayBuffer.h`

## 6.165 decaf::nio::CharBuffer Class Reference

This class defines four categories of operations upon character buffers:.

```
#include <src/main/decaf/nio/CharBuffer.h>
Inheritance diagram for decaf::nio::CharBuffer:
```

### Public Member Functions

- virtual **~CharBuffer** ()
- virtual std::string **toString** () const
- **CharBuffer** & **append** (char value) throw ( BufferOverflowException, ReadOnlyBufferException )  
*Appends the specified character to this buffer.*
- **CharBuffer** & **append** (const lang::CharSequence \*value) throw ( BufferOverflowException, ReadOnlyBufferException )  
*Appends the specified character sequence to this buffer.*
- **CharBuffer** & **append** (const lang::CharSequence \*value, std::size\_t start, std::size\_t end) throw ( decaf::lang::exceptions::IndexOutOfBoundsException, BufferOverflowException, ReadOnlyBufferException )  
*Appends a subsequence of the specified character sequence to this buffer If value is Null the the string "null" is appended to the buffer.*
- virtual char \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the character array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **CharBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only char buffer that shares this buffer's content.*
- char **charAt** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Reads the character at the given index relative to the current position.*
- virtual **CharBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **CharBuffer** \* **duplicate** ()=0  
*Creates a new char buffer that shares this buffer's content.*
- virtual char **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*



- virtual char **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **CharBuffer** & **get** (std::vector< char > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **CharBuffer** & **get** (char \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible char array.*
- std::size\_t **length** () const  
*Returns the length of this character buffer.*
- **CharBuffer** & **put** (**CharBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the chars remaining in the given source buffer into this buffer.*
- **CharBuffer** & **put** (const char \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )  
*This method transfers chars into this buffer from the given source array.*
- **CharBuffer** & **put** (std::vector< char > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )  
*This method transfers the entire content of the given source char array into this buffer.*
- virtual **CharBuffer** & **put** (char value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes the given char into this buffer at the current position, and then increments the position.*
- virtual **CharBuffer** & **put** (std::size\_t index, char value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )  
*Writes the given char into this buffer at the given index.*
- **CharBuffer** & **put** (const std::string &src, std::size\_t start, std::size\_t end) throw ( BufferOverflowException, ReadOnlyBufferException, decaf::lang::exceptions::IndexOutOfBoundsException )  
*Relative bulk put method (optional operation).*
- **CharBuffer** & **put** (const std::string &src) throw ( BufferOverflowException, ReadOnlyBufferException )  
*Relative bulk put method (optional operation).*
- virtual std::size\_t **read** (**CharBuffer** \*target) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, ReadOnlyBufferException )  
*Attempts to read characters into the specified character buffer.*

- virtual **lang::CharSequence** \* **subSequence** (std::size\_t start, std::size\_t end) const =0  
throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a new character buffer that represents the specified subsequence of this buffer, relative to the current position.*
- virtual **CharBuffer** \* **slice** () const =0  
*Creates a new **CharBuffer** (p. 998) whose content is a shared subsequence of this buffer's content.*
- virtual int **compareTo** (const **CharBuffer** &value) const  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const **CharBuffer** &value) const
- virtual bool **operator==** (const **CharBuffer** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **CharBuffer** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **CharBuffer** \* **allocate** (std::size\_t capacity)  
*Allocates a new character buffer.*
- static **CharBuffer** \* **wrap** (char \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new **CharBuffer** (p. 998).*
- static **CharBuffer** \* **wrap** (std::vector< char > &buffer)  
*Wraps the passed STL char Vector in a **CharBuffer** (p. 998).*

## Protected Member Functions

- **CharBuffer** (std::size\_t capacity)  
*Creates a **CharBuffer** (p. 998) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.165.1 Detailed Description

This class defines four categories of operations upon character buffers: o Absolute and relative get and put methods that read and write single characters; o Relative bulk get methods that transfer contiguous sequences of characters from this buffer into an array; and o Relative bulk put methods that transfer contiguous sequences of characters from a character array, a string, or some other character buffer into this buffer. o Methods for compacting, duplicating, and slicing a character buffer.

Character buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing character array or string into a buffer, or by creating a view of an existing byte buffer

This class implements the CharSequence interface so that character buffers may be used wherever character sequences are accepted, for example in the regular-expression package decaf.util.regex.

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained. The sequence of statements

```
cb.put("text/"); cb.put(subtype); cb.put("; charset="); cb.put(enc);
```

can, for example, be replaced by the single statement

```
cb.put("text/").put(subtype).put("; charset=").put(enc);
```

## 6.165.2 Constructor & Destructor Documentation

### 6.165.2.1 decaf::nio::CharBuffer::CharBuffer (std::size\_t *capacity*) [protected]

Creates a **CharBuffer** (p. 998) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

**Parameters:**

*capacity* - size of the array, this is the limit we read and write to.

### 6.165.2.2 virtual decaf::nio::CharBuffer::~~CharBuffer () [inline, virtual]

## 6.165.3 Member Function Documentation

### 6.165.3.1 static CharBuffer\* decaf::nio::CharBuffer::allocate (std::size\_t *capacity*) [static]

Allocates a new character buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

**Parameters:**

*capacity* - The size of the Char buffer in chars ( 1 byte ).

**Returns:**

the **CharBuffer** (p. 998) that was allocated, caller owns.

### 6.165.3.2 CharBuffer& decaf::nio::CharBuffer::append (const lang::CharSequence \* *value*, std::size\_t *start*, std::size\_t *end*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException, BufferOverflowException, ReadOnlyBufferException ) [virtual]

Appends a subsequence of the specified character sequence to this buffer If value is Null the the string "null" is appended to the buffer.

**Parameters:**

*value* - the CharSequence to append.  
*start* - the index to start appending from.  
*end* - the index to append to.

**Returns:**

a reference to this modified **CharBuffer** (p. 998)

**Exceptions:**

*BufferOverflowException* (p. 834) if there is no more space  
*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.  
*IndexOutOfBoundsException* if start > end, or > length of sequence.

Implements **decaf::lang::Appendable** (p. 626).

**6.165.3.3** **CharBuffer& decaf::nio::CharBuffer::append (const lang::CharSequence \*  
value) throw ( BufferOverflowException, ReadOnlyBufferException )**  
[virtual]

Appends the specified character sequence to this buffer. If value is Null the the string "null" is appended to the buffer.

**Parameters:**

*value* - the CharSequence to append.

**Returns:**

a reference to this modified **CharBuffer** (p. 998)

**Exceptions:**

*BufferOverflowException* (p. 834) if there is no more space  
*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

Implements **decaf::lang::Appendable** (p. 627).

**6.165.3.4** **CharBuffer& decaf::nio::CharBuffer::append (char value) throw (**  
**BufferOverflowException, ReadOnlyBufferException )** [virtual]

Appends the specified character to this buffer.

**Parameters:**

*value* - the char to append.

**Returns:**

a reference to this modified **CharBuffer** (p. 998)

**Exceptions:**

*BufferOverflowException* (p. 834) if there is no more space

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

Implements **decaf::lang::Appendable** (p. 627).

**6.165.3.5** `virtual char* decaf::nio::CharBuffer::array () throw (decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the character array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this **Buffer** (p. 803)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 993).

**6.165.3.6** `virtual std::size_t decaf::nio::CharBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 993).

**6.165.3.7** `virtual CharBuffer* decaf::nio::CharBuffer::asReadOnlyBuffer () const [pure virtual]`

Creates a new, read-only char buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new

buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the duplicate method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only char buffer which the caller then owns.

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 993).

**6.165.3.8** `char decaf::nio::CharBuffer::charAt (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )` [virtual]

Reads the character at the given index relative to the current position.

**Parameters:**

*index* - The index of the character to be read relative to position

**Returns:**

The character at index **position()** (p. 807) + index

**Exceptions:**

*IndexOutOfBoundsException*

Implements **decaf::lang::CharSequence** (p. 1014).

**6.165.3.9** `virtual CharBuffer& decaf::nio::CharBuffer::compact () throw ( ReadOnlyBufferException )` [pure virtual]

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \mathbf{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index **limit()** (p. 807) - 1 is copied to index  $n = \mathbf{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **CharBuffer** (p. 998)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 994).

**6.165.3.10 virtual int decaf::nio::CharBuffer::compareTo (const CharBuffer & *value*) const [virtual]**

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.165.3.11 virtual CharBuffer\* decaf::nio::CharBuffer::duplicate () [pure virtual]**

Creates a new char buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new char **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 994).

**6.165.3.12 virtual bool decaf::nio::CharBuffer::equals (const CharBuffer & *value*) const [virtual]****Returns:**

true if this value is considered equal to the passed value.

**6.165.3.13 CharBuffer& decaf::nio::CharBuffer::get (char \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )**

Relative bulk get method. This method transfers chars from this buffer into the given destination array. If there are fewer chars remaining in the buffer than are required to satisfy the request, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies `length` chars from this buffer into the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by `length`.

**Parameters:**

*buffer* - pointer to an allocated buffer to fill

*offset* - position in the buffer to start filling

*length* - amount of data to put in the passed buffer

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are fewer than *length* chars remaining in this buffer

*NullPointerException* if the passed buffer is null.

**6.165.3.14 CharBuffer& decaf::nio::CharBuffer::get (std::vector< char > *buffer*) throw ( BufferUnderflowException )**

Relative bulk get method. This method transfers chars from this buffer into the given destination vector. An invocation of this method of the form `src.get(a)` behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call `buffer.resize( N )` before calling this get method.

**Returns:**

a reference to this **CharBuffer** (p. 998)

**Exceptions:**

*BufferUnderflowException* (p. 837) - If there are fewer than *length* chars remaining in this buffer

**6.165.3.15 virtual char decaf::nio::CharBuffer::get (std::size\_t *index*) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]**

Absolute get method. Reads the char at the given index.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the char is to be read

**Returns:**

the char that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If *index* is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 994).

**6.165.3.16 virtual char decaf::nio::CharBuffer::get () throw ( BufferUnderflowException ) [pure virtual]**

Relative get method. Reads the character at this buffer's current position, and then increments the position.



**Returns:**

the char at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 995).

**6.165.3.17 virtual bool decaf::nio::CharBuffer::hasArray () const [pure virtual]**

Tells whether or not this buffer is backed by an accessible char array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 995).

**6.165.3.18 std::size\_t decaf::nio::CharBuffer::length () const [inline, virtual]**

Returns the length of this character buffer.

**Returns:**

the length of this buffer from the position to the limit.

Implements **decaf::lang::CharSequence** (p. 1015).

**6.165.3.19 virtual bool decaf::nio::CharBuffer::operator< (const CharBuffer & value) const [virtual]**

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.165.3.20 virtual bool decaf::nio::CharBuffer::operator== (const CharBuffer & value) const [virtual]**

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.165.3.21 CharBuffer& decaf::nio::CharBuffer::put (const std::string & *src*) throw ( BufferOverflowException, ReadOnlyBufferException )**

Relative bulk put method (optional operation). This method transfers the entire content of the given source string into this buffer. An invocation of this method of the form `dst.put(s)` behaves in exactly the same way as the invocation

**Parameters:**

*src* - the string to copy from

**Returns:**

a reference to this **CharBuffer** (p. 998)

**Exceptions:**

**BufferOverflowException** (p. 834) - If this buffer's current position is not

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

**6.165.3.22 CharBuffer& decaf::nio::CharBuffer::put (const std::string & *src*, std::size\_t *start*, std::size\_t *end*) throw ( BufferOverflowException, ReadOnlyBufferException, decaf::lang::exceptions::IndexOutOfBoundsException )**

Relative bulk put method (optional operation). This method transfers characters from the given string into this buffer. If there are more characters to be copied from the string than remain in this buffer, that is, if `end - start > remaining()` (p. 808), then no characters are transferred and a **BufferOverflowException** (p. 834) is thrown.

**Returns:**

a reference to this buffer

Otherwise, this method copies `n = end - start` characters from the given string into this buffer, starting at the given start index and at the current position of this buffer. The position of this buffer is then incremented by `n`.

**Parameters:**

*src* - the string to copy from

*start* - position in *src* to start from

*end* - the position in *src* to stop at

**Returns:**

a reference to this **CharBuffer** (p. 998)

**Exceptions:**

**BufferOverflowException** (p. 834) - If this buffer's current position is not

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

**6.165.3.23** virtual CharBuffer& decaf::nio::CharBuffer::put (std::size\_t *index*, char *value*) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException ) [pure virtual]

Writes the given char into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the char to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 995).

**6.165.3.24** virtual CharBuffer& decaf::nio::CharBuffer::put (char *value*) throw ( BufferOverflowException, ReadOnlyBufferException ) [pure virtual]

Writes the given char into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the char value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 996).

**6.165.3.25** CharBuffer& decaf::nio::CharBuffer::put (std::vector< char > & *buffer*) throw ( BufferOverflowException, ReadOnlyBufferException )

This method transfers the entire content of the given source char array into this buffer. This is the same as calling put( &buffer[0], 0, buffer.size())

**Parameters:**

*buffer* - The buffer whose contents are copied to this **CharBuffer** (p. 998)

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

**6.165.3.26** **CharBuffer& decaf::nio::CharBuffer::put (const char \* *buffer*,  
std::size\_t *offset*, std::size\_t *length*) throw ( BufferOverflowException,  
ReadOnlyBufferException, lang::exceptions::NullPointerException )**

This method transfers chars into this buffer from the given source array. If there are more chars to be copied from the array than remain in this buffer, that is, if `length > remaining()` (p. 808), then no chars are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `length` bytes from the given array into this buffer, starting at the given offset in the array and at the current position of this buffer. The position of this buffer is then incremented by `length`.

**Parameters:**

*buffer*- The array from which chars are to be read

*offset*- The offset within the array of the first char to be read;

*length* - The number of chars to be read from the given array

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

*NullPointerException* if the passed buffer is null.

**6.165.3.27** **CharBuffer& decaf::nio::CharBuffer::put (CharBuffer & *src*)  
throw ( BufferOverflowException, ReadOnlyBufferException,  
lang::exceptions::IllegalArgumentException )**

This method transfers the chars remaining in the given source buffer into this buffer. If there are more chars remaining in the source buffer than in this buffer, that is, if `src.remaining() > remaining()` (p. 808), then no chars are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `n = src.remaining()` chars from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by `n`.

**Parameters:**

*src* - the buffer to take chars from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer for the remaining chars in the source buffer

*IllegalArgumentException* - If the source buffer is this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

**6.165.3.28** `virtual std::size_t decaf::nio::CharBuffer::read (CharBuffer *  
target) throw ( decaf::lang::exceptions::NullPointerException,  
decaf::lang::exceptions::IllegalArgumentException,  
ReadOnlyBufferException ) [virtual]`

Attempts to read characters into the specified character buffer. The buffer is used as a repository of characters as-is: the only changes made are the results of a put operation. No flipping or rewinding of the buffer is performed.

**Parameters:**

*target* - the buffer to read characters into

**Returns:**

The number of characters added to the buffer, or string::npos if this source of characters is at its end

**Exceptions:**

*NullPointerException* - If target is Null

*IllegalArgumentException* - If target is this

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

**6.165.3.29** `virtual CharBuffer* decaf::nio::CharBuffer::slice () const [pure  
virtual]`

Creates a new **CharBuffer** (p. 998) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **CharBuffer** (p. 998) which the caller owns.

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 996).

**6.165.3.30** `virtual lang::CharSequence* decaf::nio::CharBuffer::subSequence (std::size_t start, std::size_t end) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Creates a new character buffer that represents the specified subsequence of this buffer, relative to the current position. The new buffer will share this buffer's content; that is, if the content of this buffer is mutable then modifications to one buffer will cause the other to be modified. The new buffer's capacity will be that of this buffer, its position will be **position()** (p. 807) + start, and its limit will be **position()** (p. 807) + end. The new **Buffer** (p. 803) will be read-only if, and only if, this buffer is read-only.

**Parameters:**

- start* - The index, relative to the current position, of the first character in the subsequence; must be non-negative and no larger than **remaining()** (p. 808)
- end* - The index, relative to the current position, of the character following the last character in the subsequence; must be no smaller than start and no larger than **remaining()** (p. 808)

**Returns:**

The new character buffer, caller owns

**Exceptions:**

*IndexOutOfBoundsException* - If the preconditions on start and end fail

Implements **decaf::lang::CharSequence** (p. 1015).

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 997).

**6.165.3.31** `virtual std::string decaf::nio::CharBuffer::toString () const [virtual]`

**Returns:**

a std::string describing this object

Implements **decaf::lang::CharSequence** (p. 1015).

**6.165.3.32** `static CharBuffer* decaf::nio::CharBuffer::wrap (std::vector< char > & buffer) [static]`

Wraps the passed STL char Vector in a **CharBuffer** (p. 998). The new buffer will be backed by the given char array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be **buffer.size()**, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

- buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling **vector.resize( N )**.

**Returns:**

a new **CharBuffer** (p. 998) that is backed by buffer, caller owns.

**6.165.3.33**    `static CharBuffer* decaf::nio::CharBuffer::wrap (char *  
                  array, std::size_t offset, std::size_t length) throw (  
                  lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new **CharBuffer** (p. 998). The new buffer will be backed by the given char array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

- array* - The array that will back the new buffer
- offset* - The offset of the subarray to be used
- length* - The length of the subarray to be used

**Returns:**

- a new **CharBuffer** (p. 998) that is backed by `buffer`, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/CharBuffer.h`

## 6.166 decaf::lang::CharSequence Class Reference

A **CharSequence** (p. 1014) is a readable sequence of char values.

#include <src/main/decaf/lang/CharSequence.h> Inheritance diagram for decaf::lang::CharSequence:

### Public Member Functions

- virtual **~CharSequence** ()
- virtual std::size\_t **length** () const =0
- virtual char **charAt** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Returns the Char at the specified index so long as the index is not greater than the length of the sequence.*
- virtual **CharSequence \* subSequence** (std::size\_t start, std::size\_t end) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Returns a new **CharSequence** (p. 1014) that is a subsequence of this sequence.*
- virtual std::string **toString** () const =0

### 6.166.1 Detailed Description

A **CharSequence** (p. 1014) is a readable sequence of char values. This interface provides uniform, read-only access to many different kinds of char sequences.

This interface does not define that a **CharSequence** (p. 1014) should implement comparable, it is therefore up to the dervied classes that implement this interface to define equality, which implies that comparison of two **CharSequences** does not have a contract on equality.

### 6.166.2 Constructor & Destructor Documentation

**6.166.2.1** virtual decaf::lang::CharSequence::~~CharSequence () [inline, virtual]

### 6.166.3 Member Function Documentation

**6.166.3.1** virtual char decaf::lang::CharSequence::charAt (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]

Returns the Char at the specified index so long as the index is not greater than the length of the sequence.

#### Parameters:

*index* - position to return the char at.

#### Returns:

the char at the given position



**Exceptions:**

*IndexOutOfBoundsException* if index is > than **length()** (p. 1015)

Implemented in **decaf::nio::CharBuffer** (p. 1004).

**6.166.3.2** `virtual std::size_t decaf::lang::CharSequence::length () const [pure virtual]`

**Returns:**

the length of the underlying character sequence.

Implemented in **decaf::nio::CharBuffer** (p. 1007).

**6.166.3.3** `virtual CharSequence* decaf::lang::CharSequence::subSequence (std::size_t start, std::size_t end) const throw (lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Returns a new **CharSequence** (p. 1014) that is a subsequence of this sequence. The subsequence starts with the char value at the specified index and ends with the char value at index end - 1. The length (in chars) of the returned sequence is end - start, so if start == end then an empty sequence is returned.

**Parameters:**

*start* - the start index, inclusive

*end* - the end index, exclusive

**Returns:**

a new **CharSequence** (p. 1014)

**Exceptions:**

*IndexOutOfBoundsException* if start or end > **length()** (p. 1015)

Implemented in **decaf::internal::nio::CharArrayBuffer** (p. 997), and **decaf::nio::CharBuffer** (p. 1012).

**6.166.3.4** `virtual std::string decaf::lang::CharSequence::toString () const [pure virtual]`

**Returns:**

the string representation of this **CharSequence** (p. 1014)

Implemented in **decaf::nio::CharBuffer** (p. 1012).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**CharSequence.h**

## 6.167 decaf::lang::exceptions::ClassCastException Class Reference

`#include <src/main/decaf/lang/exceptions/ClassCastException.h>` Inheritance diagram for `decaf::lang::exceptions::ClassCastException`:

### Public Member Functions

- **ClassCastException** () throw ()  
*Default Constructor.*
- **ClassCastException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **ClassCastException** (const **ClassCastException** &ex) throw ()  
*Copy Constructor.*
- **ClassCastException** (const std::exception \*cause) throw ()  
*Constructor.*
- **ClassCastException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **ClassCastException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **ClassCastException** \* clone () const  
*Clones this exception.*
- virtual ~**ClassCastException** () throw ()

### 6.167.1 Constructor & Destructor Documentation

#### 6.167.1.1 decaf::lang::exceptions::ClassCastException::ClassCastException () throw () [inline]

Default Constructor.

#### 6.167.1.2 decaf::lang::exceptions::ClassCastException::ClassCastException (const Exception & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.167.1.3 decaf::lang::exceptions::ClassCastException::ClassCastException (const ClassCastException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.167.1.4 decaf::lang::exceptions::ClassCastException::ClassCastException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.167.1.5 decaf::lang::exceptions::ClassCastException::ClassCastException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.167.1.6 decaf::lang::exceptions::ClassCastException::ClassCastException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.167.1.7** `virtual decaf::lang::exceptions::ClassCastException::~~ClassCastException  
() throw () [inline, virtual]`

## **6.167.2 Member Function Documentation**

**6.167.2.1** `virtual ClassCastException* de-  
caf::lang::exceptions::ClassCastException::clone () const  
[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/ClassCastException.h`

## 6.168 decaf::io::Closeable Class Reference

Interface for a class that implements the close method.

#include <src/main/decaf/io/Closeable.h> Inheritance diagram for decaf::io::Closeable:

### Public Member Functions

- virtual `~Closeable ()`
- virtual void `close ()=0 throw ( io::IOException )`  
*Closes this object and deallocates the appropriate resources.*

#### 6.168.1 Detailed Description

Interface for a class that implements the close method.

#### 6.168.2 Constructor & Destructor Documentation

**6.168.2.1** virtual `decaf::io::Closeable::~~Closeable ()` [inline, virtual]

#### 6.168.3 Member Function Documentation

**6.168.3.1** virtual void `decaf::io::Closeable::close () throw ( io::IOException )` [pure virtual]

Closes this object and deallocates the appropriate resources. The object is generally no longer usable after calling close.

#### Exceptions:

*IOException* (p. 1820) if an error occurs while closing.

Implemented in `activemq::transport::correlator::ResponseCorrelator` (p. 2788), `activemq::transport::failover::FailoverTransport` (p. 1615), `activemq::transport::inactivity::InactivityMonitor` (p. 1734), `activemq::transport::IOTransport` (p. 1825), `activemq::transport::mock::MockTransport` (p. 2373), `activemq::transport::tcp::TcpTransport` (p. 3161), `activemq::transport::TransportFilter` (p. 3283), `activemq::wireformat::openwire::OpenWireFormatNegotiator` (p. 2463), `decaf::internal::io::StandardErrorOutputStream` (p. 2995), `decaf::internal::io::StandardInputStream` (p. 3002), `decaf::internal::io::StandardOutputStream` (p. 3009), `decaf::io::BlockingByteArrayInputStream` (p. 726), `decaf::io::BufferedInputStream` (p. 811), `decaf::io::BufferedOutputStream` (p. 815), `decaf::io::ByteArrayInputStream` (p. 894), `decaf::io::ByteArrayOutputStream` (p. 902), `decaf::io::FilterInputStream` (p. 1633), `decaf::io::FilterOutputStream` (p. 1642), `decaf::net::BufferedSocket` (p. 818), `decaf::net::SocketInputStream` (p. 2979), `decaf::net::SocketOutputStream` (p. 2985), `decaf::net::TcpSocket` (p. 3154), and `decaf::util::logging::StreamHandler` (p. 3078).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/Closeable.h`

## 6.169 cms::Closeable Class Reference

Interface for a class that implements the close method.

#include <src/main/cms/Closeable.h> Inheritance diagram for cms::Closeable:

### Public Member Functions

- virtual `~Closeable()`
- virtual void `close()` throw ( CMSEException )  
*Closes this object and deallocates the appropriate resources.*

#### 6.169.1 Detailed Description

Interface for a class that implements the close method. A class that implements this interface should release all resources upon the close call and should throw an exception from any methods that require those resources after they have been closed.

Since:

1.0

#### 6.169.2 Constructor & Destructor Documentation

**6.169.2.1** virtual cms::Closeable::~~Closeable() [inline, virtual]

#### 6.169.3 Member Function Documentation

**6.169.3.1** virtual void cms::Closeable::close() throw ( CMSEException ) [pure virtual]

Closes this object and deallocates the appropriate resources. The object is generally no longer usable after calling close.

Exceptions:

*CMSEException* (p. 1031) - If an error occurs while the resource is being closed.

Implemented in `activemq::cmsutil::CachedConsumer` (p. 954), `activemq::cmsutil::CachedProducer` (p. 958), `activemq::cmsutil::PooledSession` (p. 2507), `activemq::commands::ActiveMQTempDestination` (p. 500), `activemq::core::ActiveMQConnection` (p. 236), `activemq::core::ActiveMQConsumer` (p. 266), `activemq::core::ActiveMQProducer` (p. 408), `activemq::core::ActiveMQSession` (p. 447), `cms::Connection` (p. 1132), and `cms::Session` (p. 2842).

The documentation for this class was generated from the following file:

- `src/main/cms/Closeable.h`

## 6.170 activemq::transport::failover::CloseTransportsTask Class Reference

#include <src/main/activemq/transport/failover/CloseTransportsTask.h> Inheritance diagram for activemq::transport::failover::CloseTransportsTask:

### Public Member Functions

- **CloseTransportsTask** ()
- virtual **~CloseTransportsTask** ()
- void **add** (const **Pointer**< **Transport** > &transport)  
*Add a new **Transport** (p. 3273) to close.*
- virtual bool **isPending** () const  
*This Task is pending if there are transports in the Queue that need to be closed.*
- virtual bool **iterate** ()  
*Return true until all transports have been closed and removed from the queue.*

### 6.170.1 Constructor & Destructor Documentation

**6.170.1.1** **activemq::transport::failover::CloseTransportsTask::CloseTransportsTask** () [inline]

**6.170.1.2** **virtual**  
**activemq::transport::failover::CloseTransportsTask::~~CloseTransportsTask** () [inline, virtual]

### 6.170.2 Member Function Documentation

**6.170.2.1** **void** **activemq::transport::failover::CloseTransportsTask::add** (const **Pointer**< **Transport** > & *transport*)

Add a new **Transport** (p. 3273) to close.

**6.170.2.2** **virtual bool** **activemq::transport::failover::CloseTransportsTask::isPending** () const [virtual]

This Task is pending if there are transports in the Queue that need to be closed.

#### Returns:

true if there is a transport in the queue that needs closed.

Implements **activemq::threads::CompositeTask** (p. 1090).



### 6.170.2.3 virtual bool activemq::transport::failover::CloseTransportsTask::iterate () [virtual]

Return true until all transports have been closed and removed from the queue.

Implements **activemq::threads::Task** (p. 3148).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/failover/**CloseTransportsTask.h**

## 6.171 activemq::cmsutil::CmsAccessor Class Reference

Base class for **activemq.cmsutil.CmsTemplate** (p.1041) and other CMS-accessing gateway helpers, defining common properties such as the CMS **cms.ConnectionFactory** (p.1184) to operate on.

#include <src/main/activemq/cmsutil/CmsAccessor.h> Inheritance diagram for activemq::cmsutil::CmsAccessor:

### Public Member Functions

- **CmsAccessor** ()
- virtual **~CmsAccessor** ()
- virtual **ResourceLifecycleManager** \* **getResourceLifecycleManager** ()
- virtual const **ResourceLifecycleManager** \* **getResourceLifecycleManager** () const
- virtual void **setConnectionFactory** (cms::ConnectionFactory \*connectionFactory)  
*Set the ConnectionFactory to use for obtaining CMS Connections.*
- virtual const cms::ConnectionFactory \* **getConnectionFactory** () const  
*Return the ConnectionFactory that this accessor uses for obtaining CMS Connections.*
- virtual cms::ConnectionFactory \* **getConnectionFactory** ()  
*Return the ConnectionFactory that this accessor uses for obtaining CMS Connections.*
- virtual void **setSessionAcknowledgeMode** (cms::Session::AcknowledgeMode session-AcknowledgeMode)  
*Set the CMS acknowledgment mode that is used when creating a CMS Session to send a message.*
- virtual cms::Session::AcknowledgeMode **getSessionAcknowledgeMode** () const  
*Return the acknowledgment mode for CMS sessions.*

### Protected Member Functions

- virtual void **init** () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
*Initializes this object and prepares it for use.*
- virtual void **destroy** () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
*Shuts down this object and destroys any allocated resources.*
- virtual cms::Connection \* **createConnection** () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
*Create a CMS Connection via this template's ConnectionFactory.*
- virtual cms::Session \* **createSession** (cms::Connection \*con) throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )

*Create a CMS Session for the given Connection.*

- virtual void **checkConnectionFactory** () throw ( decaf::lang::exceptions::IllegalStateException )

*Verifies that the connection factory is valid.*

## 6.171.1 Detailed Description

Base class for **activemq.cmsutil.CmsTemplate** (p.1041) and other CMS-accessing gateway helpers, defining common properties such as the CMS **cms.ConnectionFactory** (p.1184) to operate on. The subclass **activemq.cmsutil.CmsDestinationAccessor** (p.1028) adds further, destination-related properties.

Not intended to be used directly.

See also:

**activemq.cmsutil.CmsDestinationAccessor** (p.1028)  
**activemq.cmsutil.CmsTemplate** (p.1041)

## 6.171.2 Constructor & Destructor Documentation

**6.171.2.1** **activemq::cmsutil::CmsAccessor::CmsAccessor** ()

**6.171.2.2** **virtual activemq::cmsutil::CmsAccessor::~~CmsAccessor** () [virtual]

## 6.171.3 Member Function Documentation

**6.171.3.1** **virtual void activemq::cmsutil::CmsAccessor::checkConnectionFactory** () throw ( decaf::lang::exceptions::IllegalStateException ) [protected, virtual]

Verifies that the connection factory is valid.

**6.171.3.2** **virtual cms::Connection\* activemq::cmsutil::CmsAccessor::createConnection** () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException ) [protected, virtual]

Create a CMS Connection via this template's ConnectionFactory.

**Returns:**

the new CMS Connection

**Exceptions:**

**cms::CMSException** (p. 1031) if thrown by CMS API methods

**6.171.3.3** `virtual cms::Session* activemq::cmsutil::CmsAccessor::createSession (cms::Connection * con) throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException ) [protected, virtual]`

Create a CMS Session for the given Connection.

**Parameters:**

*con* the CMS Connection to create a Session for

**Returns:**

the new CMS Session

**Exceptions:**

*cms::CMSException* (p. 1031) if thrown by CMS API methods

**6.171.3.4** `virtual void activemq::cmsutil::CmsAccessor::destroy () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException ) [inline, protected, virtual]`

Shuts down this object and destroys any allocated resources.

Reimplemented in `activemq::cmsutil::CmsDestinationAccessor` (p.1029), and `activemq::cmsutil::CmsTemplate` (p.1044).

**6.171.3.5** `virtual cms::ConnectionFactory* activemq::cmsutil::CmsAccessor::getConnectionFactory () [inline, virtual]`

Return the ConnectionFactory that this accessor uses for obtaining CMS Connections.

**6.171.3.6** `virtual const cms::ConnectionFactory* activemq::cmsutil::CmsAccessor::getConnectionFactory () const [inline, virtual]`

Return the ConnectionFactory that this accessor uses for obtaining CMS Connections.

**6.171.3.7** `virtual const ResourceLifecycleManager* activemq::cmsutil::CmsAccessor::getResourceLifecycleManager () const [inline, virtual]`

**6.171.3.8** `virtual ResourceLifecycleManager* activemq::cmsutil::CmsAccessor::getResourceLifecycleManager () [inline, virtual]`

**6.171.3.9** `virtual cms::Session::AcknowledgeMode activemq::cmsutil::CmsAccessor::getSessionAcknowledgeMode () const [inline, virtual]`

Return the acknowledgment mode for CMS sessions.

**Returns:**

the acknowledgment mode applied by this accessor

**6.171.3.10** `virtual void activemq::cmsutil::CmsAccessor::init () throw (cms::CMSException, decaf::lang::exceptions::IllegalStateException) [inline, protected, virtual]`

Initializes this object and prepares it for use. This should be called before any other methods are called. This version does nothing.

Reimplemented in `activemq::cmsutil::CmsDestinationAccessor` (p.1029), and `activemq::cmsutil::CmsTemplate` (p.1047).

**6.171.3.11** `virtual void activemq::cmsutil::CmsAccessor::setConnectionFactory (cms::ConnectionFactory * connectionFactory) [inline, virtual]`

Set the ConnectionFactory to use for obtaining CMS Connections.

**6.171.3.12** `virtual void activemq::cmsutil::CmsAccessor::setSessionAcknowledgeMode (cms::Session::AcknowledgeMode sessionAcknowledgeMode) [inline, virtual]`

Set the CMS acknowledgment mode that is used when creating a CMS Session to send a message. Default is AUTO\_ACKNOWLEDGE.

**Parameters:**

*sessionAcknowledgeMode* the acknowledgment mode

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/CmsAccessor.h`

## 6.172 activemq::cmsutil::CmsDestinationAccessor Class Reference

Extends the `CmsAccessor` (p. 1024) to add support for resolving destination names.

#include <src/main/activemq/cmsutil/CmsDestinationAccessor.h> Inheritance diagram for `activemq::cmsutil::CmsDestinationAccessor`:

### Public Member Functions

- `CmsDestinationAccessor ()`
- `virtual ~CmsDestinationAccessor ()`
- `virtual bool isPubSubDomain () const`
- `virtual void setPubSubDomain (bool pubSubDomain)`
- `virtual DestinationResolver * getDestinationResolver ()`
- `virtual const DestinationResolver * getDestinationResolver () const`
- `virtual void setDestinationResolver (DestinationResolver *destRes)`

### Protected Member Functions

- `virtual void init () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )`  
*Initializes the destination resolver.*
- `virtual void destroy () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )`  
*Calls `destroy()` (p. 1029) on the destination resolver.*
- `virtual cms::Destination * resolveDestinationName (cms::Session *session, const std::string &destName) throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )`  
*Resolves the destination via the `DestinationResolver` (p. 1509).*
- `virtual void checkDestinationResolver () throw ( decaf::lang::exceptions::IllegalStateException )`  
*Verifies that the destination resolver is valid.*

#### 6.172.1 Detailed Description

Extends the `CmsAccessor` (p. 1024) to add support for resolving destination names. Not intended to be used directly.

See also:

`CmsTemplate` (p. 1041)  
`CmsAccessor` (p. 1024)

## 6.172.2 Constructor & Destructor Documentation

**6.172.2.1** `activemq::cmsutil::CmsDestinationAccessor::CmsDestinationAccessor ()`

**6.172.2.2** `virtual  
activemq::cmsutil::CmsDestinationAccessor::~~CmsDestinationAccessor ()  
[virtual]`

## 6.172.3 Member Function Documentation

**6.172.3.1** `virtual void ac-  
tivemq::cmsutil::CmsDestinationAccessor::checkDestinationResolver ()  
throw ( decaf::lang::exceptions::IllegalStateException ) [protected,  
virtual]`

Verifies that the destination resolver is valid.

**6.172.3.2** `virtual void activemq::cmsutil::CmsDestinationAccessor::destroy () throw  
( cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
[protected, virtual]`

Calls `destroy()` (p. 1029) on the destination resolver.

Reimplemented from `activemq::cmsutil::CmsAccessor` (p. 1026).

Reimplemented in `activemq::cmsutil::CmsTemplate` (p. 1044).

**6.172.3.3** `virtual const DestinationResolver* ac-  
tivemq::cmsutil::CmsDestinationAccessor::getDestinationResolver ()  
const [inline, virtual]`

**6.172.3.4** `virtual DestinationResolver* ac-  
tivemq::cmsutil::CmsDestinationAccessor::getDestinationResolver ()  
[inline, virtual]`

**6.172.3.5** `virtual void activemq::cmsutil::CmsDestinationAccessor::init () throw  
( cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
[protected, virtual]`

Initializes the destination resolver.

Reimplemented from `activemq::cmsutil::CmsAccessor` (p. 1027).

Reimplemented in `activemq::cmsutil::CmsTemplate` (p. 1047).

**6.172.3.6** virtual bool activemq::cmsutil::CmsDestinationAccessor::isPubSubDomain () const  
[inline, virtual]

**6.172.3.7** virtual cms::Destination\* activemq::cmsutil::CmsDestinationAccessor::resolveDestinationName (cms::Session \* *session*, const std::string & *destName*) throw (cms::CMSException, decaf::lang::exceptions::IllegalStateException )  
[protected, virtual]

Resolves the destination via the DestinationResolver (p. 1509).

**Parameters:**

*session* the session

*destName* the name of the destination.

**Returns:**

the destination

**Exceptions:**

*cms::CMSException* (p. 1031) if resolution failed.

*decaf::lang::exceptions::IllegalStateException* (p. 1726) if the destination resolver property is NULL.

**6.172.3.8** virtual void activemq::cmsutil::CmsDestinationAccessor::setDestinationResolver (DestinationResolver \* *destRes*) [inline, virtual]

**6.172.3.9** virtual void activemq::cmsutil::CmsDestinationAccessor::setPubSubDomain (bool *pubSubDomain*) [inline, virtual]

Reimplemented in **activemq::cmsutil::CmsTemplate** (p. 1052).

Referenced by **activemq::cmsutil::CmsTemplate::setPubSubDomain()**.

The documentation for this class was generated from the following file:

- **src/main/activemq/cmsutil/CmsDestinationAccessor.h**



## 6.173 cms::CMSException Class Reference

CMS API Exception that is the base for all exceptions thrown from CMS classes.

#include <src/main/cms/CMSException.h> Inheritance diagram for cms::CMSException:

### Public Member Functions

- **CMSException** () throw ()
- **CMSException** (const **CMSException** &ex) throw ()
- **CMSException** (const std::string &message, const std::exception \*cause) throw ()
- **CMSException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**CMSException** () throw ()
- virtual std::string **getMessage** () const  
*Gets the cause of the error.*
- virtual const std::exception \* **getCause** () const  
*Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.*
- virtual std::vector< std::pair< std::string, int > > **getStackTrace** () const  
*Provides the stack trace for every point where this exception was caught, marked, and rethrown.*
- virtual void **setMark** (const char \*file, const int lineNumber)  
*Adds a file/line number to the stack trace.*
- virtual void **printStackTrace** () const  
*Prints the stack trace to std::err.*
- virtual void **printStackTrace** (std::ostream &stream) const  
*Prints the stack trace to the given output stream.*
- virtual std::string **getStackTraceString** () const  
*Gets the stack trace as one contiguous string.*
- virtual const char \* **what** () const throw ()  
*Overloads the std::exception **what**() (p. 1033) function to return the cause of the exception.*

### 6.173.1 Detailed Description

CMS API Exception that is the base for all exceptions thrown from CMS classes. This class represents an error that has occurred in CMS, providers can wrap provider specific exceptions in this class by setting the cause to an instance of a provider specific exception provided it can be cast to an std::exception.

Since the contained cause exception is of type `std::exception` and the C++ exception class has no clone or copy method defined the contained exception can only be owned by one instance of an **CMSEException** (p. 1031). To that end the class hands off the exception to each successive copy so care must be taken when handling **CMSEException** (p. 1031) instances.

**Since:**

1.0

### 6.173.2 Constructor & Destructor Documentation

**6.173.2.1** `cms::CMSEException::CMSEException () throw ()`

**6.173.2.2** `cms::CMSEException::CMSEException (const CMSEException & ex) throw ()`

**6.173.2.3** `cms::CMSEException::CMSEException (const std::string & message, const std::exception * cause) throw ()`

**6.173.2.4** `cms::CMSEException::CMSEException (const std::string & message, const std::exception * cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()`

**6.173.2.5** `virtual cms::CMSEException::~~CMSEException () throw () [virtual]`

### 6.173.3 Member Function Documentation

**6.173.3.1** `virtual const std::exception* cms::CMSEException::getCause () const [virtual]`

Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.

**Returns:**

a const pointer reference to the causal exception, if there was no cause associated with this exception then NULL is returned.

**6.173.3.2** `virtual std::string cms::CMSEException::getMessage () const [virtual]`

Gets the cause of the error.

**Returns:**

string errors message

**6.173.3.3** `virtual std::vector< std::pair< std::string, int> > cms::CMSEException::getStackTrace () const [virtual]`

Provides the stack trace for every point where this exception was caught, marked, and rethrown.

**Returns:**

vector containing stack trace strings

**6.173.3.4 virtual std::string cms::CMSException::getStackTraceString () const [virtual]**

Gets the stack trace as one contiguous string.

**Returns:**

string with formatted stack trace data

**6.173.3.5 virtual void cms::CMSException::printStackTrace (std::ostream & *stream*) const [virtual]**

Prints the stack trace to the given output stream.

**Parameters:**

*stream* the target output stream.

**6.173.3.6 virtual void cms::CMSException::printStackTrace () const [virtual]**

Prints the stack trace to std::err.

**6.173.3.7 virtual void cms::CMSException::setMark (const char \* *file*, const int *lineNumber*) [virtual]**

Adds a file/line number to the stack trace.

**Parameters:**

*file* The name of the file calling this method (use `__FILE__`).

*lineNumber* The line number in the calling file (use `__LINE__`).

**6.173.3.8 virtual const char\* cms::CMSException::what () const throw () [virtual]**

Overloads the std::exception **what()** (p. 1033) function to return the cause of the exception.

**Returns:**

const char pointer to error message

The documentation for this class was generated from the following file:

- `src/main/cms/CMSException.h`

## 6.174 activemq::util::CMSExceptionSupport Class Reference

```
#include <src/main/activemq/util/CMSExceptionSupport.h>
```

### Public Member Functions

- virtual `~CMSExceptionSupport()`

### Static Public Member Functions

- static `cms::CMSException create (const std::string &msg, const decaf::lang::Exception &cause)`
- static `cms::CMSException create (const decaf::lang::Exception &cause)`
- static `cms::MessageEOFException createMessageEOFException (const decaf::lang::Exception &cause)`
- static `cms::MessageFormatException createMessageFormatException (const decaf::lang::Exception &cause)`

### 6.174.1 Constructor & Destructor Documentation

**6.174.1.1** virtual `activemq::util::CMSExceptionSupport::~~CMSExceptionSupport()` [virtual]

### 6.174.2 Member Function Documentation

**6.174.2.1** static `cms::CMSException activemq::util::CMSExceptionSupport::create (const decaf::lang::Exception & cause)` [static]

**6.174.2.2** static `cms::CMSException activemq::util::CMSExceptionSupport::create (const std::string & msg, const decaf::lang::Exception & cause)` [static]

**6.174.2.3** static `cms::MessageEOFException activemq::util::CMSExceptionSupport::createMessageEOFException (const decaf::lang::Exception & cause)` [static]

**6.174.2.4** static `cms::MessageFormatException activemq::util::CMSExceptionSupport::createMessageFormatException (const decaf::lang::Exception & cause)` [static]

Referenced by `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getBooleanProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getByteProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getDoubleProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getFloatProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getIntProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getLongProperty()`, `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getShortProperty()`, and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::getStringProperty()`.

The documentation for this class was generated from the following file:

- `src/main/activemq/util/CMSExceptionSupport.h`

## 6.175 cms::CMSProperties Class Reference

Interface for a Java-like properties object.

#include <src/main/cms/CMSProperties.h> Inheritance diagram for cms::CMSProperties:

### Public Member Functions

- virtual **~CMSProperties** ()
- virtual bool **isEmpty** () const =0  
*Returns true if the properties object is empty.*
- virtual const char \* **getProperty** (const std::string &name) const =0  
*Looks up the value for the given property.*
- virtual std::string **getProperty** (const std::string &name, const std::string &defaultValue) const =0  
*Looks up the value for the given property.*
- virtual void **setProperty** (const std::string &name, const std::string &value)=0  
*Sets the value for a given property.*
- virtual bool **hasProperty** (const std::string &name) const =0  
*Check to see if the Property exists in the set.*
- virtual void **remove** (const std::string &name)=0  
*Removes the property with the given name.*
- virtual std::vector< std::pair< std::string, std::string > > **toArray** () const =0  
*Method that serializes the contents of the property map to an array.*
- virtual void **copy** (const **CMSProperties** \*source)=0  
*Copies the contents of the given properties object to this one.*
- virtual **CMSProperties** \* **clone** () const =0  
*Clones this object.*
- virtual void **clear** ()=0  
*Clears all properties from the map.*
- virtual std::string **toString** () const =0  
*Formats the contents of the Properties Object into a string that can be logged, etc.*

## 6.175.1 Detailed Description

Interface for a Java-like properties object. This is essentially a map of key-value string pairs.

**Since:**

1.1

## 6.175.2 Constructor & Destructor Documentation

**6.175.2.1** virtual cms::CMSProperties::~~CMSProperties () [inline, virtual]

## 6.175.3 Member Function Documentation

**6.175.3.1** virtual void cms::CMSProperties::clear () [pure virtual]

Clears all properties from the map.

Implemented in **activemq::util::ActiveMQProperties** (p. 415).

**6.175.3.2** virtual CMSProperties\* cms::CMSProperties::clone () const [pure virtual]

Clones this object.

**Returns:**

a replica of this object.

Implemented in **activemq::util::ActiveMQProperties** (p. 415).

**6.175.3.3** virtual void cms::CMSProperties::copy (const CMSProperties \* *source*) [pure virtual]

Copies the contents of the given properties object to this one.

**Parameters:**

*source* The source properties object.

**6.175.3.4** virtual std::string cms::CMSProperties::getProperty (const std::string & *name*, const std::string & *defaultValue*) const [pure virtual]

Looks up the value for the given property.

**Parameters:**

*name* the name of the property to be looked up.

*defaultValue* The value to be returned if the given property does not exist.

**Returns:**

The value of the property specified by *name*, if it exists, otherwise the *defaultValue*.

Implemented in **activemq::util::ActiveMQProperties** (p. 416).

**6.175.3.5** `virtual const char* cms::CMSProperties::getProperty (const std::string & name) const` [pure virtual]

Looks up the value for the given property.

**Parameters:**

*name* The name of the property to be looked up.

**Returns:**

the value of the property with the given name, if it exists. If it does not exist, returns NULL.

Implemented in `activemq::util::ActiveMQProperties` (p. 416).

**6.175.3.6** `virtual bool cms::CMSProperties::hasProperty (const std::string & name) const` [pure virtual]

Check to see if the Property exists in the set.

**Parameters:**

*name* the name of the property to check

**Returns:**

true if property exists, false otherwise.

Implemented in `activemq::util::ActiveMQProperties` (p. 416).

**6.175.3.7** `virtual bool cms::CMSProperties::isEmpty () const` [pure virtual]

Returns true if the properties object is empty.

**Returns:**

true if empty

Implemented in `activemq::util::ActiveMQProperties` (p. 417).

**6.175.3.8** `virtual void cms::CMSProperties::remove (const std::string & name)` [pure virtual]

Removes the property with the given name.

**Parameters:**

*name* the name of the property to be removed.s

Implemented in `activemq::util::ActiveMQProperties` (p. 417).



**6.175.3.9** `virtual void cms::CMSProperties::setProperty (const std::string & name,  
const std::string & value)` [pure virtual]

Sets the value for a given property. If the property already exists, overwrites the value.

**Parameters:**

*name* The name of the value to be written.

*value* The value to be written.

Implemented in `activemq::util::ActiveMQProperties` (p. 417).

**6.175.3.10** `virtual std::vector< std::pair< std::string, std::string > >  
cms::CMSProperties::toArray () const` [pure virtual]

Method that serializes the contents of the property map to an array.

**Returns:**

list of pairs where the first is the name and the second is the value.

Implemented in `activemq::util::ActiveMQProperties` (p. 417).

**6.175.3.11** `virtual std::string cms::CMSProperties::toString () const` [pure  
virtual]

Formats the contents of the Properties Object into a string that can be logged, etc.

**Returns:**

string value of this object.

Implemented in `activemq::util::ActiveMQProperties` (p. 417).

The documentation for this class was generated from the following file:

- `src/main/cms/CMSProperties.h`

## 6.176 cms::CMSSecurityException Class Reference

This exception must be thrown when a provider rejects a user name/password submitted by a client.

#include <src/main/cms/CMSSecurityException.h> Inheritance diagram for cms::CMSSecurityException:

### Public Member Functions

- **CMSSecurityException** () throw ()
- **CMSSecurityException** (const **CMSSecurityException** &ex) throw ()
- **CMSSecurityException** (const std::string &message, const std::exception \*cause) throw ()
- **CMSSecurityException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**CMSSecurityException** () throw ()

### 6.176.1 Detailed Description

This exception must be thrown when a provider rejects a user name/password submitted by a client. It may also be thrown for any case where a security restriction prevents a method from completing.

Since:

1.3

### 6.176.2 Constructor & Destructor Documentation

- 6.176.2.1** cms::CMSSecurityException::CMSSecurityException () throw ()
- 6.176.2.2** cms::CMSSecurityException::CMSSecurityException (const CMSSecurityException & ex) throw ()
- 6.176.2.3** cms::CMSSecurityException::CMSSecurityException (const std::string & message, const std::exception \* cause) throw ()
- 6.176.2.4** cms::CMSSecurityException::CMSSecurityException (const std::string & message, const std::exception \* cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()
- 6.176.2.5** virtual cms::CMSSecurityException::~~CMSSecurityException () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/CMSSecurityException.h

## 6.177 activemq::cmsutil::CmsTemplate Class Reference

**CmsTemplate** (p. 1041) simplifies performing synchronous CMS operations.

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate:

### Data Structures

- class **ProducerExecutor**
- class **ReceiveExecutor**
- class **ResolveProducerExecutor**
- class **ResolveReceiveExecutor**
- class **SendExecutor**

### Public Member Functions

- **CmsTemplate** ()
- **CmsTemplate** (cms::ConnectionFactory \*connectionFactory)
- virtual ~**CmsTemplate** ()
- virtual void **setDefaultDestination** (cms::Destination \*defaultDestination)  
*Sets the destination object to be used by default for send/receive operations.*
- virtual const cms::Destination \* **getDefaultDestination** () const  
*Retrieves the default destination to be used for send/receive operations.*
- virtual cms::Destination \* **getDefaultDestination** ()  
*Retrieves the default destination to be used for send/receive operations.*
- virtual void **setDefaultDestinationName** (const std::string &defaultDestinationName)  
*Sets the name of the default destination to be used from send/receive operations.*
- virtual const std::string **getDefaultDestinationName** () const  
*Gets the name of the default destination to be used for send/receive operations.*
- virtual void **setPubSubDomain** (bool pubSubDomain)  
*Indicates whether the default destination is a topic (true) or a queue (false).*
- virtual void **setMessageIdEnabled** (bool messageIdEnabled)
- virtual bool **isMessageIdEnabled** () const
- virtual void **setMessageTimestampEnabled** (bool messageTimestampEnabled)
- virtual bool **isMessageTimestampEnabled** () const
- virtual void **setNoLocal** (bool noLocal)
- virtual bool **isNoLocal** () const
- virtual void **setReceiveTimeout** (long long receiveTimeout)
- virtual long long **getReceiveTimeout** () const
- virtual void **setExplicitQosEnabled** (bool explicitQosEnabled)  
*Set if the QOS values (deliveryMode, priority, timeToLive) should be used for sending a message.*

- virtual bool **isExplicitQosEnabled** () const  
*If "true", then the values of deliveryMode, priority, and timeToLive will be used when sending a message.*
- virtual void **setDeliveryPersistent** (bool deliveryPersistent)  
*Set whether message delivery should be persistent or non-persistent, specified as boolean value ("true" or "false").*
- virtual void **setDeliveryMode** (int deliveryMode)  
*Set the delivery mode to use when sending a message.*
- virtual int **getDeliveryMode** () const  
*Return the delivery mode to use when sending a message.*
- virtual void **setPriority** (int priority)  
*Set the priority of a message when sending.*
- virtual int **getPriority** () const  
*Return the priority of a message when sending.*
- virtual void **setTimeToLive** (long long timeToLive)  
*Set the time-to-live of the message when sending.*
- virtual long long **getTimeToLive** () const  
*Return the time-to-live of the message when sending.*
- virtual void **execute** (SessionCallback \*action) throw ( cms::CMSException )  
*Executes the given action within a CMS Session.*
- virtual void **execute** (ProducerCallback \*action) throw ( cms::CMSException )  
*Executes the given action and provides it with a CMS Session and producer.*
- virtual void **execute** (cms::Destination \*dest, ProducerCallback \*action) throw ( cms::CMSException )  
*Executes the given action and provides it with a CMS Session and producer.*
- virtual void **execute** (const std::string &destinationName, ProducerCallback \*action) throw ( cms::CMSException )  
*Executes the given action and provides it with a CMS Session and producer.*
- virtual void **send** (MessageCreator \*messageCreator) throw ( cms::CMSException )  
*Convenience method for sending a message to the default destination.*
- virtual void **send** (cms::Destination \*dest, MessageCreator \*messageCreator) throw ( cms::CMSException )  
*Convenience method for sending a message to the specified destination.*
- virtual void **send** (const std::string &destinationName, MessageCreator \*messageCreator) throw ( cms::CMSException )

*Convenience method for sending a message to the specified destination.*

- virtual **cms::Message** \* **receive** () throw ( cms::CMSEException )  
*Performs a synchronous read from the default destination.*
- virtual **cms::Message** \* **receive** (cms::Destination \*destination) throw ( cms::CMSEException )  
*Performs a synchronous read from the specified destination.*
- virtual **cms::Message** \* **receive** (const std::string &destinationName) throw ( cms::CMSEException )  
*Performs a synchronous read from the specified destination.*
- virtual **cms::Message** \* **receiveSelected** (const std::string &selector) throw ( cms::CMSEException )  
*Performs a synchronous read consuming only messages identified by the given selector.*
- virtual **cms::Message** \* **receiveSelected** (cms::Destination \*destination, const std::string &selector) throw ( cms::CMSEException )  
*Performs a synchronous read from the specified destination, consuming only messages identified by the given selector.*
- virtual **cms::Message** \* **receiveSelected** (const std::string &destinationName, const std::string &selector) throw ( cms::CMSEException )  
*Performs a synchronous read from the specified destination, consuming only messages identified by the given selector.*

## Static Public Attributes

- static const long long **RECEIVE\_TIMEOUT\_NO\_WAIT** = -1  
*Timeout value indicating that a receive operation should check if a message is immediately available without blocking.*
- static const long long **RECEIVE\_TIMEOUT\_INDEFINITE\_WAIT** = 0  
*Timeout value indicating a blocking receive without timeout.*
- static const int **DEFAULT\_PRIORITY** = 4  
*Default message priority.*
- static const long long **DEFAULT\_TIME\_TO\_LIVE** = 0  
*My default, messages should live forever.*

## Protected Member Functions

- void **init** () throw ( cms::CMSEException, decaf::lang::exceptions::IllegalStateException )  
*Initializes this object and prepares it for use.*

- void **destroy** () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )

*Clears all internal resources.*

## Friends

- class **ProducerExecutor**
- class **ResolveProducerExecutor**
- class **SendExecutor**
- class **ReceiveExecutor**
- class **ResolveReceiveExecutor**

### 6.177.1 Detailed Description

**CmsTemplate** (p. 1041) simplifies performing synchronous CMS operations. This class is intended to be for CMS what Spring's **JmsTemplate** is for JMS. Provided with a CMS **ConnectionFactory**, creates and manages all other CMS resources internally.

Before using **CmsTemplate** (p. 1041) the user must first set the destination (either by name or by setting the destination object directly) and then call **init** to initialize the object for use.

**CmsTemplate** (p. 1041) allows the user to get access to a CMS **Session** through a user-defined **SessionCallback** (p. 2852). Similarly, if the user wants direct access to a CMS **MessageProducer**, it can provide a **ProducerCallback** (p. 2603). As a convenience, the user can bypass having to provide callbacks altogether for sending messages, by calling one of the **send** methods.

See also:

**SessionCallback** (p. 2852)  
**ProducerCallback** (p. 2603)  
**MessageCreator** (p. 2218)

### 6.177.2 Constructor & Destructor Documentation

6.177.2.1 **activemq::cmsutil::CmsTemplate::CmsTemplate ()**

6.177.2.2 **activemq::cmsutil::CmsTemplate::CmsTemplate (cms::ConnectionFactory \* *connectionFactory*)**

6.177.2.3 **virtual activemq::cmsutil::CmsTemplate::~~CmsTemplate ()** [virtual]

### 6.177.3 Member Function Documentation

6.177.3.1 **void activemq::cmsutil::CmsTemplate::destroy () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException )**  
 [protected, virtual]

Clears all internal resources.

Reimplemented from **activemq::cmsutil::CmsDestinationAccessor** (p. 1029).

**6.177.3.2** virtual void activemq::cmsutil::CmsTemplate::execute (const std::string & *destinationName*, ProducerCallback \* *action*) throw ( cms::CMSEException ) [virtual]

Executes the given action and provides it with a CMS Session and producer.

**Parameters:**

*destinationName* the name of the destination to send messages to (to internally be resolved to an actual destination)

*action* the action to perform

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.3** virtual void activemq::cmsutil::CmsTemplate::execute (cms::Destination \* *dest*, ProducerCallback \* *action*) throw ( cms::CMSEException ) [virtual]

Executes the given action and provides it with a CMS Session and producer.

**Parameters:**

*dest* the destination to send messages to

*action* the action to perform

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.4** virtual void activemq::cmsutil::CmsTemplate::execute (ProducerCallback \* *action*) throw ( cms::CMSEException ) [virtual]

Executes the given action and provides it with a CMS Session and producer.

**Parameters:**

*action* the action to perform

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.5** virtual void activemq::cmsutil::CmsTemplate::execute (SessionCallback \* *action*) throw ( cms::CMSEException ) [virtual]

Executes the given action within a CMS Session.

**Parameters:**

*action* the action to perform within a CMS Session

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.6** `virtual cms::Destination* activemq::cmsutil::CmsTemplate::getDefaultDestination ()`  
[inline, virtual]

Retrieves the default destination to be used for send/receive operations.

**Returns:**

the default destination. Non-const version of this method.

**6.177.3.7** `virtual const cms::Destination* activemq::cmsutil::CmsTemplate::getDefaultDestination () const`  
[inline, virtual]

Retrieves the default destination to be used for send/receive operations.

**Returns:**

the default destination. Const version of this method.

**6.177.3.8** `virtual const std::string activemq::cmsutil::CmsTemplate::getDefaultDestinationName () const`  
[inline, virtual]

Gets the name of the default destination to be used for send/receive operations. The destination type (topic/queue) is determined by the `pubSubDomain` property.

**Returns:**

the default name of the destination for send/receive operations.

**6.177.3.9** `virtual int activemq::cmsutil::CmsTemplate::getDeliveryMode () const`  
[inline, virtual]

Return the delivery mode to use when sending a message.

**6.177.3.10** `virtual int activemq::cmsutil::CmsTemplate::getPriority () const`  
[inline, virtual]

Return the priority of a message when sending.

**6.177.3.11** `virtual long long activemq::cmsutil::CmsTemplate::getReceiveTimeout () const` [inline, virtual]

**6.177.3.12** `virtual long long activemq::cmsutil::CmsTemplate::getTimeToLive () const` [inline, virtual]

Return the time-to-live of the message when sending.



**6.177.3.13** `void activemq::cmsutil::CmsTemplate::init () throw ( cms::CMSException, decaf::lang::exceptions::IllegalStateException ) [protected, virtual]`

Initializes this object and prepares it for use. This should be called before any other methods are called.

Reimplemented from `activemq::cmsutil::CmsDestinationAccessor` (p. 1029).

**6.177.3.14** `virtual bool activemq::cmsutil::CmsTemplate::isExplicitQosEnabled () const [inline, virtual]`

If "true", then the values of `deliveryMode`, `priority`, and `timeToLive` will be used when sending a message. Otherwise, the default values, that may be set administratively, will be used.

**Returns:**

true if overriding default values of QOS parameters (`deliveryMode`, `priority`, and `timeToLive`)

**See also:**

`setDeliveryMode` (p. 1051)  
`setPriority` (p. 1052)  
`setTimeToLive` (p. 1052)

**6.177.3.15** `virtual bool activemq::cmsutil::CmsTemplate::isMessageIdEnabled () const [inline, virtual]`

**6.177.3.16** `virtual bool activemq::cmsutil::CmsTemplate::isMessageTimestampEnabled () const [inline, virtual]`

**6.177.3.17** `virtual bool activemq::cmsutil::CmsTemplate::isNoLocal () const [inline, virtual]`

**6.177.3.18** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receive (const std::string & destinationName) throw ( cms::CMSException ) [virtual]`

Performs a synchronous read from the specified destination.

**Parameters:**

*destinationName* the name of the destination to receive on (will be resolved to destination internally).

**Returns:**

the message

**Exceptions:**

*cms::CMSException* (p. 1031) thrown if an error occurs

**6.177.3.19** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receive  
(cms::Destination * destination) throw ( cms::CMSEException )  
[virtual]`

Performs a synchronous read from the specified destination.

**Parameters:**

*destination* the destination to receive on

**Returns:**

the message

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs

**6.177.3.20** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receive () throw  
( cms::CMSEException ) [virtual]`

Performs a synchronous read from the default destination.

**Returns:**

the message

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs

**6.177.3.21** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receiveSelected  
(const std::string & destinationName, const std::string & selector)  
throw ( cms::CMSEException ) [virtual]`

Performs a synchronous read from the specified destination, consuming only messages identified by the given selector.

**Parameters:**

*destinationName* the name of the destination to receive on (will be resolved to destination internally).

*selector* the selector expression.

**Returns:**

the message

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs

**6.177.3.22** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receiveSelected (cms::Destination * destination, const std::string & selector) throw ( cms::CMSException )` [virtual]

Performs a synchronous read from the specified destination, consuming only messages identified by the given selector.

**Parameters:**

*destination* the destination to receive on.

*selector* the selector expression.

**Returns:**

the message

**Exceptions:**

*cms::CMSException* (p. 1031) thrown if an error occurs

**6.177.3.23** `virtual cms::Message* activemq::cmsutil::CmsTemplate::receiveSelected (const std::string & selector) throw ( cms::CMSException )` [virtual]

Performs a synchronous read consuming only messages identified by the given selector.

**Parameters:**

*selector* the selector expression.

**Returns:**

the message

**Exceptions:**

*cms::CMSException* (p. 1031) thrown if an error occurs

**6.177.3.24** `virtual void activemq::cmsutil::CmsTemplate::send (const std::string & destinationName, MessageCreator * messageCreator) throw ( cms::CMSException )` [virtual]

Convenience method for sending a message to the specified destination.

**Parameters:**

*destinationName* The name of the destination to send to.

*messageCreator* Responsible for creating the message to be sent

**Exceptions:**

*cms::CMSException* (p. 1031) thrown if an error occurs.

**6.177.3.25** `virtual void activemq::cmsutil::CmsTemplate::send (cms::Destination * dest, MessageCreator * messageCreator) throw ( cms::CMSEException ) [virtual]`

Convenience method for sending a message to the specified destination.

**Parameters:**

*dest* The destination to send to

*messageCreator* Responsible for creating the message to be sent

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.26** `virtual void activemq::cmsutil::CmsTemplate::send (MessageCreator * messageCreator) throw ( cms::CMSEException ) [virtual]`

Convenience method for sending a message to the default destination.

**Parameters:**

*messageCreator* Responsible for creating the message to be sent

**Exceptions:**

*cms::CMSEException* (p. 1031) thrown if an error occurs.

**6.177.3.27** `virtual void activemq::cmsutil::CmsTemplate::setDefaultDestination (cms::Destination * defaultDestination) [inline, virtual]`

Sets the destination object to be used by default for send/receive operations. If no default destination is provided, the `defaultDestinationName` property is used to resolve this default destination for send/receive operations.

**Parameters:**

*defaultDestination* the default destination

**6.177.3.28** `virtual void activemq::cmsutil::CmsTemplate::setDefaultDestinationName (const std::string & defaultDestinationName) [inline, virtual]`

Sets the name of the default destination to be used from send/receive operations. Calling this method will set the `defaultDestination` property to NULL. The destination type (topic/queue) is determined by the `pubSubDomain` property.

**Parameters:**

*defaultDestinationName* the name of the destination for send/receive to by default.

**6.177.3.29 virtual void activemq::cmsutil::CmsTemplate::setDeliveryMode (int *deliveryMode*)** [inline, virtual]

Set the delivery mode to use when sending a message. Default is the Message default: "PERSISTENT".

Since a default value may be defined administratively, this is only used when "isExplicitQosEnabled" equals "true".

**Parameters:**

*deliveryMode* the delivery mode to use

**See also:**

`isExplicitQosEnabled` (p. 1047)

**6.177.3.30 virtual void activemq::cmsutil::CmsTemplate::setDeliveryPersistent (bool *deliveryPersistent*)** [inline, virtual]

Set whether message delivery should be persistent or non-persistent, specified as boolean value ("true" or "false"). This will set the delivery mode accordingly, to either "PERSISTENT" or "NON\_PERSISTENT".

Default it "true" aka delivery mode "PERSISTENT".

**See also:**

`setDeliveryMode(int)` (p. 1051)

**6.177.3.31 virtual void activemq::cmsutil::CmsTemplate::setExplicitQosEnabled (bool *explicitQosEnabled*)** [inline, virtual]

Set if the QOS values (deliveryMode, priority, timeToLive) should be used for sending a message.

**See also:**

`setDeliveryMode` (p. 1051)

`setPriority` (p. 1052)

`setTimeToLive` (p. 1052)

- 6.177.3.32** `virtual void activemq::cmsutil::CmsTemplate::setMessageIdEnabled (bool messageIdEnabled) [inline, virtual]`
- 6.177.3.33** `virtual void activemq::cmsutil::CmsTemplate::setMessageTimestampEnabled (bool messageTimestampEnabled) [inline, virtual]`
- 6.177.3.34** `virtual void activemq::cmsutil::CmsTemplate::setNoLocal (bool noLocal) [inline, virtual]`
- 6.177.3.35** `virtual void activemq::cmsutil::CmsTemplate::setPriority (int priority) [inline, virtual]`

Set the priority of a message when sending. Since a default value may be defined administratively, this is only used when "isExplicitQosEnabled" equals "true".

See also:

`isExplicitQosEnabled` (p. 1047)

- 6.177.3.36** `virtual void activemq::cmsutil::CmsTemplate::setPubSubDomain (bool pubSubDomain) [inline, virtual]`

Indicates whether the default destination is a topic (true) or a queue (false). Calling this method will set the `defaultDestination` property to NULL.

Parameters:

*pubSubDomain* indicates whether to use pub-sub messaging (topics).

Reimplemented from `activemq::cmsutil::CmsDestinationAccessor` (p. 1030).

References `activemq::cmsutil::CmsDestinationAccessor::setPubSubDomain()`.

- 6.177.3.37** `virtual void activemq::cmsutil::CmsTemplate::setReceiveTimeout (long long receiveTimeout) [inline, virtual]`
- 6.177.3.38** `virtual void activemq::cmsutil::CmsTemplate::setTimeToLive (long long timeToLive) [inline, virtual]`

Set the time-to-live of the message when sending. Since a default value may be defined administratively, this is only used when "isExplicitQosEnabled" equals "true".

Parameters:

*timeToLive* the message's lifetime (in milliseconds)

See also:

`isExplicitQosEnabled` (p. 1047)

## 6.177.4 Friends And Related Function Documentation

6.177.4.1 friend class `ProducerExecutor` [friend]

6.177.4.2 friend class `ReceiveExecutor` [friend]

6.177.4.3 friend class `ResolveProducerExecutor` [friend]

6.177.4.4 friend class `ResolveReceiveExecutor` [friend]

6.177.4.5 friend class `SendExecutor` [friend]

## 6.177.5 Field Documentation

6.177.5.1 `const int activemq::cmsutil::CmsTemplate::DEFAULT_PRIORITY = 4`  
[static]

Default message priority.

6.177.5.2 `const long long activemq::cmsutil::CmsTemplate::DEFAULT_TIME_TO_LIVE = 0` [static]

My default, messages should live forever.

6.177.5.3 `const long long activemq::cmsutil::CmsTemplate::RECEIVE_TIMEOUT_INDEFINITE_WAIT = 0` [static]

Timeout value indicating a blocking receive without timeout.

6.177.5.4 `const long long activemq::cmsutil::CmsTemplate::RECEIVE_TIMEOUT_NO_WAIT = -1` [static]

Timeout value indicating that a receive operation should check if a message is immediately available without blocking.

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/CmsTemplate.h`

## 6.178 decaf::util::Collection< E > Class Template Reference

The root interface in the collection hierarchy.

```
#include <src/main/decaf/util/Collection.h>Inheritance          diagram          for
decaf::util::Collection< E >:
```

### Public Member Functions

- virtual **~Collection** ()
- virtual bool **add** (const E &value)=0 throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )  
*Returns true if this collection changed as a result of the call.*
- virtual bool **addAll** (const **Collection**< E > &collection)=0 throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )  
*Adds all of the elements in the specified collection to this collection.*
- virtual void **clear** ()=0 throw ( lang::exceptions::UnsupportedOperationException )  
*Removes all of the elements from this collection (optional operation).*
- virtual bool **contains** (const E &value) const =0 throw ( lang::Exception )  
*Returns true if this collection contains the specified element.*
- virtual bool **containsAll** (const **Collection**< E > &collection) const =0 throw ( lang::Exception )  
*Returns true if this collection contains all of the elements in the specified collection.*
- virtual bool **equals** (const **Collection**< E > &value) const =0  
*Compares the passed collection to this one, if they contain the same elements, i.e.*
- virtual bool **isEmpty** () const =0
- virtual bool **remove** (const E &value)=0 throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Removes a single instance of the specified element from the collection.*
- virtual bool **removeAll** (const **Collection**< E > &collection)=0 throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Removes all this collection's elements that are also contained in the specified collection (optional operation).*
- virtual bool **retainAll** (const **Collection**< E > &collection)=0 throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )  
*Retains only the elements in this collection that are contained in the specified collection (optional operation).*



- virtual std::size\_t **size** () const =0

*Returns the number of elements in this collection.*

- virtual std::vector< E > **toArray** () const =0

*Returns an array containing all of the elements in this collection.*

### 6.178.1 Detailed Description

**template<typename E> class decaf::util::Collection< E >**

The root interface in the collection hierarchy. A collection represents a group of objects, known as its elements. Some collections allow duplicate elements and others do not. Some are ordered and others unordered. This interface is typically used to pass collections around and manipulate them where maximum generality is desired.

All general-purpose **Collection** (p. 1054) implementation classes (which typically implement **Collection** (p. 1054) indirectly through one of its subinterfaces) should provide two "standard" constructors: a void (no arguments) constructor, which creates an empty collection, and a constructor with a single argument of type **Collection** (p. 1054), which creates a new collection with the same elements as its argument. In effect, the latter constructor allows the user to copy any collection, producing an equivalent collection of the desired implementation type. There is no way to enforce this convention (as interfaces cannot contain constructors) but all of the general-purpose **Collection** (p. 1054) implementations in the Decaf platform libraries comply.

The "destructive" methods contained in this interface, that is, the methods that modify the collection on which they operate, are specified to throw UnsupportedOperationException if this collection does not support the operation. If this is the case, these methods may, but are not required to, throw an UnsupportedOperationException if the invocation would have no effect on the collection. For example, invoking the addAll(Collection) method on an unmodifiable collection may, but is not required to, throw the exception if the collection to be added is empty.

Many methods in Collections Framework interfaces are defined in terms of the equals method. For example, the specification for the contains(Object o) method says: "returns true if and only if this collection contains at least one element e such that (o==null ? e==null : o.equals(e))."

**Since:**

1.0

## 6.178.2 Constructor & Destructor Documentation

**6.178.2.1** `template<typename E> virtual decaf::util::Collection< E >::~~Collection  
( ) [inline, virtual]`

## 6.178.3 Member Function Documentation

**6.178.3.1** `template<typename E> virtual bool decaf::util::Collection<  
E >::add (const E & value) throw (  
lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException,  
lang::exceptions::IllegalStateException ) [pure  
virtual]`

Returns true if this collection changed as a result of the call. (Returns false if this collection does not permit duplicates and already contains the specified element.)

Collections that support this operation may place limitations on what elements may be added to this collection. In particular, some collections will refuse to add null elements, and others will impose restrictions on the type of elements that may be added. **Collection** (p. 1054) classes should clearly specify in their documentation any restrictions on what elements may be added.

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

For non-pointer values, i.e. class instances or string's the object will be copied into the collection, thus the object must support being copied, must not hide the copy constructor and assignment operator.

### Parameters:

*value* - reference to the element to add.

### Returns:

true if the element was added

### Exceptions:

*UnsupportedOperationException*

*IllegalArgumentException*

*IllegalStateException* if the element cannot be added at this time due to insertion restrictions

Implemented in `decaf::util::AbstractQueue< E >` (p. 163), `decaf::util::PriorityQueue< E >` (p. 2574), `decaf::util::StlList< E >` (p. 3022), `decaf::util::StlSet< E >` (p. 3053), `decaf::util::StlList< CompositeTask * >` (p. 3022), `decaf::util::StlList< URI >` (p. 3022), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3022), `decaf::util::StlList< PrimitiveValueNode >` (p. 3022), `decaf::util::StlList< Pointer< Command > >` (p. 3022), `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3022), `decaf::util::StlSet< transport::TransportListener * >` (p. 3053), `decaf::util::StlSet< Pointer< Synchronization > >` (p. 3053), and `decaf::util::StlSet< ActiveMQSession * >` (p. 3053).

```

6.178.3.2  template<typename E> virtual bool decaf::util::Collection<
            E >::addAll (const Collection< E > & collection) throw
            ( lang::exceptions::UnsupportedOperationException,
              lang::exceptions::IllegalArgumentException,
              lang::exceptions::IllegalStateException ) [pure
              virtual]

```

Adds all of the elements in the specified collection to this collection. The behavior of this operation is undefined if the specified collection is modified while the operation is in progress. (This implies that the behavior of this call is undefined if the specified collection is this collection, and this collection is nonempty.)

**Parameters:**

*collection* - **Collection** (p. 1054) whose elements are added to this one.

**Returns:**

true if this collection changed as a result of the call

**Exceptions:**

*UnsupportedOperationException*

*IllegalArgumentException*

*IllegalStateException* if the element cannot be added at this time due to insertion restrictions

Implemented in **decaf::util::AbstractCollection< E >** (p. 151), **decaf::util::AbstractQueue< E >** (p. 163), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p. 151), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p. 151), **decaf::util::AbstractCollection< CompositeTask \* >** (p. 151), **decaf::util::AbstractCollection< URI >** (p. 151), **decaf::util::AbstractCollection< ActiveMQSession \* >** (p. 151), **decaf::util::AbstractCollection< Pointer< DestinationInfo > >** (p. 151), **decaf::util::AbstractCollection< PrimitiveValueNode >** (p. 151), **decaf::util::AbstractCollection< Pointer< Command > >** (p. 151), and **decaf::util::AbstractCollection< Pointer< BackupTransport > >** (p. 151).

```

6.178.3.3  template<typename E> virtual void decaf::util::Collection< E >::clear
            () throw ( lang::exceptions::UnsupportedOperationException ) [pure
            virtual]

```

Removes all of the elements from this collection (optional operation). This collection will be empty after this method returns unless it throws an exception.

**Exceptions:**

*UnsupportedOperationException*

Implemented in **decaf::util::AbstractCollection< E >** (p. 151), **decaf::util::AbstractQueue< E >** (p. 164), **decaf::util::PriorityQueue< E >** (p. 2574), **decaf::util::StlList< E >** (p. 3024), **decaf::util::StlSet< E >** (p. 3054), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p. 151), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p. 151), **decaf::util::AbstractCollection< CompositeTask \* >** (p. 151),

decaf::util::AbstractCollection< URI > (p.151), decaf::util::AbstractCollection< ActiveMQSession \* > (p.151), decaf::util::AbstractCollection< Pointer< DestinationInfo > > (p.151), decaf::util::AbstractCollection< PrimitiveValueNode > (p.151), decaf::util::AbstractCollection< Pointer< Command > > (p.151), decaf::util::AbstractCollection< Pointer< BackupTransport > > (p.151), decaf::util::StlList< CompositeTask \* > (p.3024), decaf::util::StlList< URI > (p.3024), decaf::util::StlList< Pointer< DestinationInfo > > (p.3024), decaf::util::StlList< PrimitiveValueNode > (p.3024), decaf::util::StlList< Pointer< Command > > (p.3024), decaf::util::StlList< Pointer< BackupTransport > > (p.3024), decaf::util::StlSet< transport::TransportListener \* > (p.3054), decaf::util::StlSet< Pointer< Synchronization > > (p.3054), and decaf::util::StlSet< ActiveMQSession \* > (p.3054).

**6.178.3.4** `template<typename E> virtual bool decaf::util::Collection< E >::contains (const E & value) const throw ( lang::Exception )` [pure virtual]

Returns true if this collection contains the specified element. More formally, returns true if and only if this collection contains at least one element *e* such that (*o*==null ? *e*==null : *o.equals(e)*).

**Parameters:**

*value* - value to check for presence in the collection

**Returns:**

true if there is at least one of the elements in the collection

**Exceptions:**

*Exception*

Implemented in decaf::util::AbstractCollection< E > (p.152), decaf::util::StlList< E > (p.3024), decaf::util::StlSet< E > (p.3055), decaf::util::AbstractCollection< transport::TransportListener \* > (p.152), decaf::util::AbstractCollection< Pointer< Synchronization > > (p.152), decaf::util::AbstractCollection< CompositeTask \* > (p.152), decaf::util::AbstractCollection< URI > (p.152), decaf::util::AbstractCollection< ActiveMQSession \* > (p.152), decaf::util::AbstractCollection< Pointer< DestinationInfo > > (p.152), decaf::util::AbstractCollection< PrimitiveValueNode > (p.152), decaf::util::AbstractCollection< Pointer< Command > > (p.152), decaf::util::AbstractCollection< Pointer< BackupTransport > > (p.152), decaf::util::StlList< CompositeTask \* > (p.3024), decaf::util::StlList< URI > (p.3024), decaf::util::StlList< Pointer< DestinationInfo > > (p.3024), decaf::util::StlList< PrimitiveValueNode > (p.3024), decaf::util::StlList< Pointer< Command > > (p.3024), decaf::util::StlList< Pointer< BackupTransport > > (p.3024), decaf::util::StlSet< transport::TransportListener \* > (p.3055), decaf::util::StlSet< Pointer< Synchronization > > (p.3055), and decaf::util::StlSet< ActiveMQSession \* > (p.3055).

**6.178.3.5** `template<typename E> virtual bool decaf::util::Collection< E >::containsAll (const Collection< E > & collection) const throw ( lang::Exception )` [pure virtual]

Returns true if this collection contains all of the elements in the specified collection.

**Parameters:**

*collection* - Collection (p.1054) to compare to this one.

**Exceptions:***Exception*

Implemented in `decaf::util::AbstractCollection< E >` (p. 152),  
`decaf::util::AbstractCollection< transport::TransportListener * >`  
 (p. 152), `decaf::util::AbstractCollection< Pointer< Synchronization > >`  
 (p. 152), `decaf::util::AbstractCollection< CompositeTask * >` (p. 152),  
`decaf::util::AbstractCollection< URI >` (p. 152), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 152),  
`decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 152), `decaf::util::AbstractCollection< PrimitiveValueNode >`  
 (p. 152), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 152), and  
`decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 152).

### 6.178.3.6 `template<typename E> virtual bool decaf::util::Collection< E >::equals (const Collection< E > & value) const` [pure virtual]

Compares the passed collection to this one, if they contain the same elements, i.e. all their elements are equivalent, then it returns true.

**Returns:**

true if the Collections contain the same elements.

Implemented in `decaf::util::AbstractCollection< E >` (p. 153),  
`decaf::util::AbstractCollection< transport::TransportListener * >`  
 (p. 153), `decaf::util::AbstractCollection< Pointer< Synchronization > >`  
 (p. 153), `decaf::util::AbstractCollection< CompositeTask * >` (p. 153),  
`decaf::util::AbstractCollection< URI >` (p. 153), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 153),  
`decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 153), `decaf::util::AbstractCollection< PrimitiveValueNode >`  
 (p. 153), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 153), and  
`decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 153).

### 6.178.3.7 `template<typename E> virtual bool decaf::util::Collection< E >::isEmpty () const` [pure virtual]

**Returns:**

true if this collection contains no elements.

Implemented in `decaf::util::AbstractCollection< E >` (p. 153), `decaf::util::StlList< E >` (p. 3025), `decaf::util::StlSet< E >` (p. 3055), `decaf::util::AbstractCollection< transport::TransportListener * >` (p. 153), `decaf::util::AbstractCollection< Pointer< Synchronization > >` (p. 153), `decaf::util::AbstractCollection< CompositeTask * >` (p. 153), `decaf::util::AbstractCollection< URI >` (p. 153), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 153), `decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 153), `decaf::util::AbstractCollection< PrimitiveValueNode >` (p. 153), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 153), `decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 153), `decaf::util::StlList< CompositeTask * >` (p. 3025), `decaf::util::StlList< URI >` (p. 3025), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3025), `decaf::util::StlList< PrimitiveValueNode >` (p. 3025), `decaf::util::StlList< Pointer< Command > >` (p. 3025), `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3025), `decaf::util::StlSet<`

`transport::TransportListener * >` (p. 3055), `decaf::util::StlSet< Pointer< Synchronization > >` (p. 3055), and `decaf::util::StlSet< ActiveMQSession * >` (p. 3055).

**6.178.3.8** `template<typename E> virtual bool decaf::util::Collection< E >::remove (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException ) [pure virtual]`

Removes a single instance of the specified element from the collection. More formally, removes an element *e* such that (*o*==null ? *e*==null : *o*.equals(*e*)), if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

#### Parameters:

*value* - reference to the element to remove.

#### Returns:

true if the collection was changed

#### Exceptions:

*UnsupportedOperationException*

*IllegalArgumentException*

Implemented in `decaf::util::AbstractCollection< E >` (p. 155), `decaf::util::PriorityQueue< E >` (p. 2577), `decaf::util::StlList< E >` (p. 3027), `decaf::util::StlSet< E >` (p. 3056), `decaf::util::AbstractCollection< transport::TransportListener * >` (p. 155), `decaf::util::AbstractCollection< Pointer< Synchronization > >` (p. 155), `decaf::util::AbstractCollection< CompositeTask * >` (p. 155), `decaf::util::AbstractCollection< URI >` (p. 155), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 155), `decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 155), `decaf::util::AbstractCollection< PrimitiveValueNode >` (p. 155), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 155), `decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 155), `decaf::util::StlList< CompositeTask * >` (p. 3027), `decaf::util::StlList< URI >` (p. 3027), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3027), `decaf::util::StlList< PrimitiveValueNode >` (p. 3027), `decaf::util::StlList< Pointer< Command > >` (p. 3027), `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3027), `decaf::util::StlSet< transport::TransportListener * >` (p. 3056), `decaf::util::StlSet< Pointer< Synchronization > >` (p. 3056), and `decaf::util::StlSet< ActiveMQSession * >` (p. 3056).

**6.178.3.9** `template<typename E> virtual bool decaf::util::Collection< E >::removeAll (const Collection< E > & collection) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException ) [pure virtual]`

Removes all this collection's elements that are also contained in the specified collection (optional operation). After this call returns, this collection will contain no elements in common with the specified collection.

**Parameters:**

*collection* - The **Collection** (p. 1054) whose elements are to be removed

**Returns:**

true if the collection changed as a result of this call

**Exceptions:**

*UnsupportedOperationException*

*IllegalArgumentException*

Implemented in **decaf::util::AbstractCollection< E >** (p. 155), **decaf::util::AbstractSet< E >** (p. 167), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p. 155), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p. 155), **decaf::util::AbstractCollection< CompositeTask \* >** (p. 155), **decaf::util::AbstractCollection< URI >** (p. 155), **decaf::util::AbstractCollection< ActiveMQSession \* >** (p. 155), **decaf::util::AbstractCollection< Pointer< DestinationInfo > >** (p. 155), **decaf::util::AbstractCollection< PrimitiveValueNode >** (p. 155), **decaf::util::AbstractCollection< Pointer< Command > >** (p. 155), **decaf::util::AbstractCollection< Pointer< BackupTransport > >** (p. 155), **decaf::util::AbstractSet< transport::TransportListener \* >** (p. 167), **decaf::util::AbstractSet< Pointer< Synchronization > >** (p. 167), and **decaf::util::AbstractSet< ActiveMQSession \* >** (p. 167).

```
6.178.3.10  template<typename E> virtual bool decaf::util::Collection<
            E >::retainAll (const Collection< E > & collection)
            throw ( lang::exceptions::UnsupportedOperationException,
                    lang::exceptions::IllegalArgumentException ) [pure virtual]
```

Retains only the elements in this collection that are contained in the specified collection (optional operation). In other words, removes from this collection all of its elements that are not contained in the specified collection.

**Parameters:**

*collection* - The **Collection** (p. 1054) whose elements are to be retained

**Returns:**

true if the collection changed as a result of this call

**Exceptions:**

*UnsupportedOperationException*

*IllegalArgumentException*

Implemented in **decaf::util::AbstractCollection< E >** (p. 156), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p. 156), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p. 156), **decaf::util::AbstractCollection< CompositeTask \* >** (p. 156), **decaf::util::AbstractCollection< URI >** (p. 156), **decaf::util::AbstractCollection< ActiveMQSession \* >** (p. 156), **decaf::util::AbstractCollection< Pointer< DestinationInfo > >** (p. 156), **decaf::util::AbstractCollection< PrimitiveValueNode >** (p. 156), **decaf::util::AbstractCollection< Pointer< Command > >** (p. 156), and **decaf::util::AbstractCollection< Pointer< BackupTransport > >** (p. 156).

**6.178.3.11** `template<typename E> virtual std::size_t decaf::util::Collection< E >::size () const [pure virtual]`

Returns the number of elements in this collection. If this collection contains more than `Integer.MAX_VALUE` elements, returns `Integer.MAX_VALUE`.

**Returns:**

the number of elements in this collection

Implemented in `decaf::util::PriorityQueue< E >` (p. 2577), `decaf::util::StlList< E >` (p. 3028), `decaf::util::StlSet< E >` (p. 3056), `decaf::util::StlList< CompositeTask * >` (p. 3028), `decaf::util::StlList< URI >` (p. 3028), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3028), `decaf::util::StlList< PrimitiveValueNode >` (p. 3028), `decaf::util::StlList< Pointer< Command > >` (p. 3028), `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3028), `decaf::util::StlSet< transport::TransportListener * >` (p. 3056), `decaf::util::StlSet< Pointer< Synchronization > >` (p. 3056), and `decaf::util::StlSet< ActiveMQSession * >` (p. 3056).

Referenced by `decaf::util::AbstractCollection< Pointer< BackupTransport > >::equals()`, `decaf::util::AbstractCollection< Pointer< BackupTransport > >::isEmpty()`, `decaf::util::AbstractSet< ActiveMQSession * >::removeAll()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::toArray()`.

**6.178.3.12** `template<typename E> virtual std::vector<E> decaf::util::Collection< E >::toArray () const [pure virtual]`

Returns an array containing all of the elements in this collection. If the collection makes any guarantees as to what order its elements are returned by its iterator, this method must return the elements in the same order.

This method acts as bridge between array-based and collection-based APIs.

**Returns:**

an array of the elements in this collection.

Implemented in `decaf::util::AbstractCollection< E >` (p. 157), `decaf::util::AbstractCollection< transport::TransportListener * >` (p. 157), `decaf::util::AbstractCollection< Pointer< Synchronization > >` (p. 157), `decaf::util::AbstractCollection< CompositeTask * >` (p. 157), `decaf::util::AbstractCollection< URI >` (p. 157), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 157), `decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 157), `decaf::util::AbstractCollection< PrimitiveValueNode >` (p. 157), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 157), and `decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 157).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Collection.h`



## 6.179 activemq::commands::Command Class Reference

#include <src/main/activemq/commands/Command.h> Inheritance diagram for activemq::commands::Command:

### Public Member Functions

- virtual **~Command** ()
- virtual void **setCommandId** (int id)=0  
*Sets the **Command** (p. 1063) Id of this **Message** (p. 2145).*
- virtual int **getCommandId** () const =0  
*Gets the **Command** (p. 1063) Id of this **Message** (p. 2145).*
- virtual void **setResponseRequired** (const bool required)=0  
*Set if this **Message** (p. 2145) requires a **Response** (p. 2781).*
- virtual bool **isResponseRequired** () const =0  
*Is a **Response** (p. 2781) required for this **Command** (p. 1063).*
- virtual std::string **toString** () const =0  
*Returns a provider-specific string that provides information about the contents of the command.*
- virtual **decaf::lang::Pointer**< **commands::Command** > **visit** (**activemq::state::CommandVisitor** \*visitor)=0 throw ( **exceptions::ActiveMQException** )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*
- virtual bool **isConnectionInfo** () const =0
- virtual bool **isConsumerInfo** () const =0
- virtual bool **isBrokerInfo** () const =0
- virtual bool **isKeepAliveInfo** () const =0
- virtual bool **isMessage** () const =0
- virtual bool **isMessageAck** () const =0
- virtual bool **isMessageDispatch** () const =0
- virtual bool **isMessageDispatchNotification** () const =0
- virtual bool **isProducerAck** () const =0
- virtual bool **isProducerInfo** () const =0
- virtual bool **isResponse** () const =0
- virtual bool **isRemoveInfo** () const =0
- virtual bool **isRemoveSubscriptionInfo** () const =0
- virtual bool **isShutdownInfo** () const =0
- virtual bool **isTransactionInfo** () const =0
- virtual bool **isWireFormatInfo** () const =0

## 6.179.1 Constructor & Destructor Documentation

**6.179.1.1** `virtual activemq::commands::Command::~~Command () [inline, virtual]`

## 6.179.2 Member Function Documentation

**6.179.2.1** `virtual int activemq::commands::Command::getCommandId () const [pure virtual]`

Gets the **Command** (p. 1063) Id of this **Message** (p. 2145).

### Returns:

**Command** (p. 1063) Id

Implemented in **activemq::commands::BaseCommand** (p. 652).

**6.179.2.2** `virtual bool activemq::commands::Command::isBrokerInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 653), and **activemq::commands::BrokerInfo** (p. 779).

**6.179.2.3** `virtual bool activemq::commands::Command::isConnectionInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 653), and **activemq::commands::ConnectionInfo** (p. 1214).

**6.179.2.4** `virtual bool activemq::commands::Command::isConsumerInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 653), and **activemq::commands::ConsumerInfo** (p. 1304).

**6.179.2.5** `virtual bool activemq::commands::Command::isKeepAliveInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 653), and **activemq::commands::KeepAliveInfo** (p. 1932).

**6.179.2.6** `virtual bool activemq::commands::Command::isMessage () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 653), and **activemq::commands::Message** (p. 2156).

**6.179.2.7** `virtual bool activemq::commands::Command::isMessageAck () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 653), and `activemq::commands::MessageAck` (p. 2191).

**6.179.2.8** `virtual bool activemq::commands::Command::isMessageDispatch () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 653), and `activemq::commands::MessageDispatch` (p. 2222).

**6.179.2.9** `virtual bool activemq::commands::Command::isMessageDispatchNotification () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::MessageDispatchNotification` (p. 2254).

**6.179.2.10** `virtual bool activemq::commands::Command::isProducerAck () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::ProducerAck` (p. 2581).

**6.179.2.11** `virtual bool activemq::commands::Command::isProducerInfo () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::ProducerInfo` (p. 2634).

**6.179.2.12** `virtual bool activemq::commands::Command::isRemoveInfo () const`  
[pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::RemoveInfo` (p. 2705).

**6.179.2.13** `virtual bool activemq::commands::Command::isRemoveSubscriptionInfo () const` [pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::RemoveSubscriptionInfo` (p. 2730).

**6.179.2.14** `virtual bool activemq::commands::Command::isResponse () const` [pure virtual]

Implemented in `activemq::commands::BaseCommand` (p. 654), and `activemq::commands::Response` (p. 2783).

**6.179.2.15** `virtual bool activemq::commands::Command::isResponseRequired () const [pure virtual]`

Is a **Response** (p. 2781) required for this **Command** (p. 1063).

**Returns:**

true if a response is required.

Implemented in **activemq::commands::BaseCommand** (p. 654).

**6.179.2.16** `virtual bool activemq::commands::Command::isShutdownInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 655), and **activemq::commands::ShutdownInfo** (p. 2936).

**6.179.2.17** `virtual bool activemq::commands::Command::isTransactionInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 655), and **activemq::commands::TransactionInfo** (p. 3242).

**6.179.2.18** `virtual bool activemq::commands::Command::isWireFormatInfo () const [pure virtual]`

Implemented in **activemq::commands::BaseCommand** (p. 655), and **activemq::commands::WireFormatInfo** (p. 3376).

**6.179.2.19** `virtual void activemq::commands::Command::setCommandId (int id) [pure virtual]`

Sets the **Command** (p. 1063) Id of this **Message** (p. 2145).

**Parameters:**

*id* **Command** (p. 1063) Id

Implemented in **activemq::commands::BaseCommand** (p. 655).

**6.179.2.20** `virtual void activemq::commands::Command::setResponseRequired (const bool required) [pure virtual]`

Set if this **Message** (p. 2145) requires a **Response** (p. 2781).

**Parameters:**

*required* true if response is required

Implemented in **activemq::commands::BaseCommand** (p. 655).

### 6.179.2.21 virtual std::string activemq::commands::Command::toString () const [pure virtual]

Returns a provider-specific string that provides information about the contents of the command.

Reimplemented from `activemq::commands::BaseDataStructure` (p. 718).

Implemented in `activemq::commands::ActiveMQBlobMessage` (p. 176), `activemq::commands::ActiveMQBytesMessage` (p. 208), `activemq::commands::ActiveMQMapMessage` (p. 320), `activemq::commands::ActiveMQMessage` (p. 344), `activemq::commands::ActiveMQObjectMessage` (p. 385), `activemq::commands::ActiveMQStreamMessage` (p. 474), `activemq::commands::ActiveMQTextMessage` (p. 577), `activemq::commands::BaseCommand` (p. 655), `activemq::commands::BrokerInfo` (p. 780), `activemq::commands::ConnectionControl` (p. 1138), `activemq::commands::ConnectionError` (p. 1162), `activemq::commands::ConnectionInfo` (p. 1215), `activemq::commands::ConsumerControl` (p. 1253), `activemq::commands::ConsumerInfo` (p. 1305), `activemq::commands::ControlCommand` (p. 1332), `activemq::commands::DataArrayResponse` (p. 1358), `activemq::commands::DataResponse` (p. 1397), `activemq::commands::DestinationInfo` (p. 1487), `activemq::commands::ExceptionResponse` (p. 1584), `activemq::commands::FlushCommand` (p. 1678), `activemq::commands::IntegerResponse` (p. 1779), `activemq::commands::KeepAliveInfo` (p. 1932), `activemq::commands::Message` (p. 2159), `activemq::commands::MessageAck` (p. 2192), `activemq::commands::MessageDispatch` (p. 2222), `activemq::commands::MessageDispatchNotification` (p. 2255), `activemq::commands::MessagePull` (p. 2349), `activemq::commands::ProducerAck` (p. 2581), `activemq::commands::ProducerInfo` (p. 2634), `activemq::commands::RemoveInfo` (p. 2705), `activemq::commands::RemoveSubscriptionInfo` (p. 2730), `activemq::commands::ReplayCommand` (p. 2754), `activemq::commands::Response` (p. 2783), `activemq::commands::SessionInfo` (p. 2879), `activemq::commands::ShutdownInfo` (p. 2936), `activemq::commands::TransactionInfo` (p. 3243), and `activemq::commands::WireFormatInfo` (p. 3378).

### 6.179.2.22 virtual decaf::lang::Pointer<commands::Command> activemq::commands::Command::visit (activemq::state::CommandVisitor \* visitor) throw ( exceptions::ActiveMQException ) [pure virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

#### Returns:

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implemented in `activemq::commands::BrokerError` (p. 748), `activemq::commands::BrokerInfo` (p. 781), `activemq::commands::ConnectionControl` (p. 1138), `activemq::commands::ConnectionError` (p. 1163), `activemq::commands::ConnectionInfo` (p. 1215), `activemq::commands::ConsumerControl` (p. 1254), `activemq::commands::ConsumerInfo` (p. 1306), `activemq::commands::ControlCommand` (p. 1332), `activemq::commands::DestinationInfo` (p. 1487), `activemq::commands::FlushCommand` (p. 1678), `activemq::commands::KeepAliveInfo` (p. 1932), `activemq::commands::Message` (p. 2160), `activemq::commands::MessageAck` (p. 2192), `activemq::commands::MessageDispatch`

(p. 2223), **activemq::commands::MessageDispatchNotification**  
(p. 2255), **activemq::commands::MessagePull** (p. 2349), **ac-**  
**tivemq::commands::ProducerAck** (p. 2582), **activemq::commands::ProducerInfo**  
(p. 2635), **activemq::commands::RemoveInfo** (p. 2706), **ac-**  
**tivemq::commands::RemoveSubscriptionInfo** (p. 2730), **ac-**  
**tivemq::commands::ReplayCommand** (p. 2754), **activemq::commands::Response**  
(p. 2784), **activemq::commands::SessionInfo** (p. 2879), **ac-**  
**tivemq::commands::ShutdownInfo** (p. 2936), **activemq::commands::TransactionInfo**  
(p. 3243), and **activemq::commands::WireFormatInfo** (p. 3378).

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/Command.h`

## 6.180 activemq::state::CommandVisitor Class Reference

Interface for an Object that can visit the various Command Objects that are sent from and to this client.

#include <src/main/activemq/state/CommandVisitor.h> Inheritance diagram for activemq::state::CommandVisitor:

### Public Member Functions

- virtual `~CommandVisitor ()`
- virtual `decaf::lang::Pointer< commands::Command > processTransactionInfo (commands::TransactionInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveInfo (commands::RemoveInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processConnectionInfo (commands::ConnectionInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processSessionInfo (commands::SessionInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processProducerInfo (commands::ProducerInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processConsumerInfo (commands::ConsumerInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveConnection (commands::ConnectionId *id)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveSession (commands::SessionId *id)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveProducer (commands::ProducerId *id)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveConsumer (commands::ConsumerId *id)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processDestinationInfo (commands::DestinationInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveDestination (commands::DestinationInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processRemoveSubscriptionInfo (commands::RemoveSubscriptionInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processMessage (commands::Message *send)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processMessageAck (commands::MessageAck *ack)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processMessagePull (commands::MessagePull *pull)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processBeginTransaction (commands::TransactionInfo *info)=0` throw ( exceptions::ActiveMQException )
- virtual `decaf::lang::Pointer< commands::Command > processPrepareTransaction (commands::TransactionInfo *info)=0` throw ( exceptions::ActiveMQException )

- virtual **decaf::lang::Pointer**< **commands::Command** > **processCommitTransactionOnePhase** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processCommitTransactionTwoPhase** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processRollbackTransaction** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processWireFormat** (**commands::WireFormatInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processKeepAliveInfo** (**commands::KeepAliveInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processShutdownInfo** (**commands::ShutdownInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processFlushCommand** (**commands::FlushCommand** \*command)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processBrokerInfo** (**commands::BrokerInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processRecoverTransactions** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processForgetTransaction** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processEndTransaction** (**commands::TransactionInfo** \*info)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processMessageDispatchNotification** (**commands::MessageDispatchNotification** \*notification)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processProducerAck** (**commands::ProducerAck** \*ack)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processMessageDispatch** (**commands::MessageDispatch** \*dispatch)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processControlCommand** (**commands::ControlCommand** \*command)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConnectionError** (**commands::ConnectionError** \*error)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConnectionControl** (**commands::ConnectionControl** \*control)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConsumerControl** (**commands::ConsumerControl** \*control)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processBrokerError** (**commands::BrokerError** \*error)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processReplayCommand** (**commands::ReplayCommand** \*replay)=0 throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processResponse** (**commands::Response** \*response)=0 throw ( exceptions::ActiveMQException )

### 6.180.1 Detailed Description

Interface for an Object that can visit the various Command Objects that are sent from and to this client. The Commands themselves implement a **visit** method that is called with an instance of this interface and each one then call the appropriate **processXXX** method.



Since:

3.0

## 6.180.2 Constructor & Destructor Documentation

**6.180.2.1** virtual `activemq::state::CommandVisitor::~~CommandVisitor ()` [inline, virtual]

## 6.180.3 Member Function Documentation

**6.180.3.1** virtual `decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitor::processBeginTransaction`  
(`commands::TransactionInfo * info`) throw (`exceptions::ActiveMQException`) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1246).

**6.180.3.2** virtual `decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitor::processBrokerError`  
(`commands::BrokerError * error`) throw (`exceptions::ActiveMQException`) [pure virtual]

**6.180.3.3** virtual `decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitor::processBrokerInfo`  
(`commands::BrokerInfo * info`) throw (`exceptions::ActiveMQException`) [pure virtual]

**6.180.3.4** virtual `decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitor::processCommitTransactionOnePhase`  
(`commands::TransactionInfo * info`) throw (`exceptions::ActiveMQException`) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1246).

**6.180.3.5** virtual `decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitor::processCommitTransactionTwoPhase`  
(`commands::TransactionInfo * info`) throw (`exceptions::ActiveMQException`) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1246).

- 6.180.3.6** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processConnectionControl  
 (commands::ConnectionControl \* *control*) throw (  
 exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.7** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processConnectionError  
 (commands::ConnectionError \* *error*) throw (  
 exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.8** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processConnectionInfo  
 (commands::ConnectionInfo \* *info*) throw (  
 exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.9** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processConsumerControl  
 (commands::ConsumerControl \* *control*) throw (  
 exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.10** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processConsumerInfo  
 (commands::ConsumerInfo \* *info*) throw (  
 exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.11** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processControlCommand  
 (commands::ControlCommand \* *command*) throw (  
 exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.12** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processDestinationInfo  
 (commands::DestinationInfo \* *info*) throw (  
 exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.13** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processEndTransaction  
 (commands::TransactionInfo \* *info*) throw (  
 exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.14** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processFlushCommand  
(commands::FlushCommand \* *command*) throw (  
exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.15** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processForgetTransaction  
(commands::TransactionInfo \* *info*) throw (  
exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.16** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processKeepAliveInfo  
(commands::KeepAliveInfo \* *info*) throw (  
exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.17** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processMessage (commands::Message  
\* *send*) throw ( exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.18** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processMessageAck  
(commands::MessageAck \* *ack*) throw ( exceptions::ActiveMQException  
) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

- 6.180.3.19** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processMessageDispatch  
(commands::MessageDispatch \* *dispatch*) throw (  
exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.20** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processMessageDispatchNotification  
(commands::MessageDispatchNotification \* *notification*) throw (  
exceptions::ActiveMQException ) [pure virtual]
- 6.180.3.21** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processMessagePull  
(commands::MessagePull \* *pull*) throw ( exceptions::ActiveMQException  
) [pure virtual]
- 6.180.3.22** virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processPrepareTransaction  
(commands::TransactionInfo \* *info*) throw (  
exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1247).

**6.180.3.23** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processProducerAck  
(commands::ProducerAck * ack) throw ( exceptions::ActiveMQException  
) [pure virtual]`

**6.180.3.24** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processProducerInfo (com-  
mands::ProducerInfo * info) throw ( exceptions::ActiveMQException )  
[pure virtual]`

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.25** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRecoverTransactions  
(commands::TransactionInfo * info) throw ( exceptions::ActiveMQException ) [pure virtual]`

**6.180.3.26** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRemoveConnection  
(commands::ConnectionId * id) throw ( exceptions::ActiveMQException  
) [pure virtual]`

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.27** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRemoveConsumer  
(commands::ConsumerId * id) throw ( exceptions::ActiveMQException  
) [pure virtual]`

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.28** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRemoveDestination  
(commands::DestinationInfo * info) throw ( exceptions::ActiveMQException ) [pure virtual]`

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.29** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRemoveInfo  
(commands::RemoveInfo * info) throw ( exceptions::ActiveMQException  
) [pure virtual]`

Implemented in `activemq::state::CommandVisitorAdapter` (p. 1080).

**6.180.3.30** `virtual decaf::lang::Pointer<commands::Command>  
activemq::state::CommandVisitor::processRemoveProducer  
(commands::ProducerId * id) throw ( exceptions::ActiveMQException )  
[pure virtual]`

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.31** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processRemoveSession  
 (commands::SessionId \* *id*) throw ( exceptions::ActiveMQException )  
 [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.32** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processRemoveSubscriptionInfo  
 (commands::RemoveSubscriptionInfo \* *info*) throw ( exceptions::ActiveMQException ) [pure virtual]

**6.180.3.33** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processReplayCommand  
 (commands::ReplayCommand \* *replay*) throw ( exceptions::ActiveMQException ) [pure virtual]

**6.180.3.34** virtual decaf::lang::Pointer<commands::Command> ac-  
 tivemq::state::CommandVisitor::processResponse (commands::Response  
 \* *response*) throw ( exceptions::ActiveMQException ) [pure virtual]

**6.180.3.35** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processRollbackTransaction  
 (commands::TransactionInfo \* *info*) throw ( exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1248).

**6.180.3.36** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processSessionInfo  
 (commands::SessionInfo \* *info*) throw ( exceptions::ActiveMQException )  
 [pure virtual]

Implemented in `activemq::state::ConnectionStateTracker` (p. 1249).

**6.180.3.37** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processShutdownInfo (com-  
 mands::ShutdownInfo \* *info*) throw ( exceptions::ActiveMQException )  
 [pure virtual]

**6.180.3.38** virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitor::processTransactionInfo  
 (commands::TransactionInfo \* *info*) throw ( exceptions::ActiveMQException ) [pure virtual]

Implemented in `activemq::state::CommandVisitorAdapter` (p. 1081).

**6.180.3.39**    `virtual decaf::lang::Pointer<commands::Command>  
                activemq::state::CommandVisitor::processWireFormat  
                (commands::WireFormatInfo * info) throw (  
                exceptions::ActiveMQException ) [pure virtual]`

The documentation for this class was generated from the following file:

- `src/main/activemq/state/CommandVisitor.h`

## 6.181 activemq::state::CommandVisitorAdapter Class Reference

Default Implementation of a **CommandVisitor** (p.1069) that returns NULL for all calls.

#include <src/main/activemq/state/CommandVisitorAdapter.h> Inheritance diagram for activemq::state::CommandVisitorAdapter:

### Public Member Functions

- virtual **~CommandVisitorAdapter** ()
- virtual **decaf::lang::Pointer< commands::Command > processRemoveConnection** (commands::ConnectionId \*id AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveSession** (commands::SessionId \*id AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveProducer** (commands::ProducerId \*id AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveConsumer** (commands::ConsumerId \*id AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processDestinationInfo** (commands::DestinationInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveDestination** (commands::DestinationInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveSubscriptionInfo** (commands::RemoveSubscriptionInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processMessage** (commands::Message \*send AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processMessageAck** (commands::MessageAck \*ack AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processMessagePull** (commands::MessagePull \*pull AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processBeginTransaction** (commands::TransactionInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processPrepareTransaction** (commands::TransactionInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processCommitTransactionOnePhase** (commands::TransactionInfo \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )

- virtual **decaf::lang::Pointer**< **commands::Command** > **processCommitTransactionTwoPhase** (**commands::TransactionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processRollbackTransaction** (**commands::TransactionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processWireFormat** (**commands::WireFormatInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processKeepAliveInfo** (**commands::KeepAliveInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processShutdownInfo** (**commands::ShutdownInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processFlushCommand** (**commands::FlushCommand** \*command AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processBrokerInfo** (**commands::BrokerInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processRecoverTransactions** (**commands::TransactionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processForgetTransaction** (**commands::TransactionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processEndTransaction** (**commands::TransactionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processMessageDispatchNotification** (**commands::MessageDispatchNotification** \*notification AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processProducerAck** (**commands::ProducerAck** \*ack AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processMessageDispatch** (**commands::MessageDispatch** \*dispatch AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processControlCommand** (**commands::ControlCommand** \*command AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConnectionError** (**commands::ConnectionError** \*error AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConnectionControl** (**commands::ConnectionControl** \*control AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer**< **commands::Command** > **processConsumerControl** (**commands::ConsumerControl** \*control AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )



- virtual **decaf::lang::Pointer< commands::Command > processBrokerError** (**commands::BrokerError** \*error AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processReplayCommand** (**commands::ReplayCommand** \*replay AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processResponse** (**commands::Response** \*response AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processConnectionInfo** (**commands::ConnectionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processSessionInfo** (**commands::SessionInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processProducerInfo** (**commands::ProducerInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processConsumerInfo** (**commands::ConsumerInfo** \*info AMQCPP\_UNUSED) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processTransactionInfo** (**commands::TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **decaf::lang::Pointer< commands::Command > processRemoveInfo** (**commands::RemoveInfo** \*info) throw ( exceptions::ActiveMQException )

### 6.181.1 Detailed Description

Default Implementation of a **CommandVisitor** (p.1069) that returns NULL for all calls.

Since:

3.0

## 6.181.2 Constructor & Destructor Documentation

- 6.181.2.1 virtual  
 activemq::state::CommandVisitorAdapter::~~CommandVisitorAdapter ()  
 [inline, virtual]

## 6.181.3 Member Function Documentation

- 6.181.3.1 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processBeginTransaction  
 (commands::TransactionInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.2 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processBrokerError  
 (commands::BrokerError \*error *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.3 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processBrokerInfo  
 (commands::BrokerInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.4 virtual decaf::lang::Pointer<commands::Command> ac-  
 tivemq::state::CommandVisitorAdapter::processCommitTransactionOnePhase  
 (commands::TransactionInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.5 virtual decaf::lang::Pointer<commands::Command> ac-  
 tivemq::state::CommandVisitorAdapter::processCommitTransactionTwoPhase  
 (commands::TransactionInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.6 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processConnectionControl  
 (commands::ConnectionControl \*control *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.7 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processConnectionError  
 (commands::ConnectionError \*error *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.8 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processConnectionInfo  
 (commands::ConnectionInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.9 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processConsumerControl  
 (commands::ConsumerControl \*control *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.10 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processConsumerInfo  
 (commands::ConsumerInfo \*info *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]
- 6.181.3.11 virtual decaf::lang::Pointer<commands::Command>  
 activemq::state::CommandVisitorAdapter::processControlCommand  
 (commands::ControlCommand \*command *AMQCPP\_UNUSED*) throw (  
 exceptions::ActiveMQException ) [inline, virtual]

References `activemq::commands::ConnectionId::ID_CONNECTIONID`, `activemq::commands::ConsumerId::ID_CONSUMERID`, `activemq::commands::ProducerId::ID_PRODUCERID`, and `activemq::commands::SessionId::ID_SESSIONID`.

- 6.181.3.30 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processRemoveProducer`  
`(commands::ProducerId *id AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.31 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processRemoveSession`  
`(commands::SessionId *id AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.32 `virtual decaf::lang::Pointer<commands::Command>` `ac-`  
`tivemq::state::CommandVisitorAdapter::processRemoveSubscriptionInfo`  
`(commands::RemoveSubscriptionInfo *info AMQCPP_UNUSED)`  
`throw ( exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.33 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processReplayCommand`  
`(commands::ReplayCommand *replay AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.34 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processResponse`  
`(commands::Response *response AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.35 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processRollbackTransaction`  
`(commands::TransactionInfo *info AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.36 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processSessionInfo`  
`(commands::SessionInfo *info AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.37 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processShutdownInfo`  
`(commands::ShutdownInfo *info AMQCPP_UNUSED) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`
- 6.181.3.38 `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::state::CommandVisitorAdapter::processTransactionInfo`  
`(commands::TransactionInfo * info) throw (`  
`exceptions::ActiveMQException ) [inline, virtual]`

Implements `activemq::state::CommandVisitor` (p. 1075).

References `activemq::core::ActiveMQConstants::TRANSACTION_STATE_BEGIN`,  
`activemq::core::ActiveMQConstants::TRANSACTION_STATE_`

```

COMMITONEPHASE,      activemq::core::ActiveMQConstants::TRANSACTION_STATE_-
COMMITTWO PHASE,      activemq::core::ActiveMQConstants::TRANSACTION_-
STATE_END,            activemq::core::ActiveMQConstants::TRANSACTION_STATE_-
FORGET,               activemq::core::ActiveMQConstants::TRANSACTION_STATE_PREPARE,
activemq::core::ActiveMQConstants::TRANSACTION_STATE_RECOVER,      and
activemq::core::ActiveMQConstants::TRANSACTION_STATE_ROLLBACK.

```

```

6.181.3.39  virtual decaf::lang::Pointer<commands::Command>
               activemq::state::CommandVisitorAdapter::processWireFormat
               (commands::WireFormatInfo *info AMQCPP_UNUSED) throw (
               exceptions::ActiveMQException ) [inline, virtual]

```

The documentation for this class was generated from the following file:

- src/main/activemq/state/**CommandVisitorAdapter.h**

## 6.182 decaf::lang::Comparable< T > Class Template Reference

This interface imposes a total ordering on the objects of each class that implements it.

```
#include <src/main/decaf/lang/Comparable.h>
```

### Public Member Functions

- virtual **~Comparable** ()
- virtual int **compareTo** (const T &value) const =0  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const T &value) const =0
- virtual bool **operator==** (const T &value) const =0  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const T &value) const =0  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

### 6.182.1 Detailed Description

```
template<typename T> class decaf::lang::Comparable< T >
```

This interface imposes a total ordering on the objects of each class that implements it. This ordering is referred to as the class's natural ordering, and the class's compareTo method is referred to as its natural comparison method.

### 6.182.2 Constructor & Destructor Documentation

**6.182.2.1**    `template<typename T> virtual decaf::lang::Comparable< T >::~~Comparable () [inline, virtual]`

### 6.182.3 Member Function Documentation

**6.182.3.1**    `template<typename T> virtual int decaf::lang::Comparable< T >::compareTo (const T & value) const [pure virtual]`

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

In the foregoing description, the notation `sgn(expression)` designates the mathematical signum function, which is defined to return one of -1, 0, or 1 according to whether the value of expression is negative, zero or positive. The implementor must ensure `sgn(x.compareTo(y)) == -sgn(y.compareTo(x))` for all x and y. (This implies that `x.compareTo(y)` must throw an exception iff `y.compareTo(x)` throws an exception.)

The implementor must also ensure that the relation is transitive: `(x.compareTo(y)>0 && y.compareTo(z)>0)` implies `x.compareTo(z)>0`.

Finally, the implementer must ensure that `x.compareTo(y)==0` implies that `sgn(x.compareTo(z)) == sgn(y.compareTo(z))`, for all `z`.

It is strongly recommended, but not strictly required that `(x.compareTo(y)==0) == (x.equals(y))`. Generally speaking, any class that implements the **Comparable** (p.1083) interface and violates this condition should clearly indicate this fact. The recommended language is "Note: this class has a natural ordering that is inconsistent with equals."

#### Parameters:

*value* - the Object to be compared.

#### Returns:

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

Implemented in `decaf::lang::Boolean` (p.734), `decaf::lang::Boolean` (p.733), `decaf::lang::Byte` (p.842), `decaf::lang::Byte` (p.842), `decaf::lang::Character` (p.984), `decaf::lang::Character` (p.984), `decaf::lang::Double` (p.1540), `decaf::lang::Double` (p.1540), `decaf::lang::Float` (p.1650), `decaf::lang::Float` (p.1650), `decaf::lang::Integer` (p.1766), `decaf::lang::Integer` (p.1765), `decaf::lang::Long` (p.2061), `decaf::lang::Long` (p.2060), `decaf::lang::Short` (p.2908), and `decaf::lang::Short` (p.2908).

**6.182.3.2** `template<typename T> virtual bool decaf::lang::Comparable< T >::equals (const T & value) const` [pure virtual]

#### Returns:

true if this value is considered equal to the passed value.

Implemented in `decaf::lang::Boolean` (p.734), `decaf::lang::Boolean` (p.734), `decaf::lang::Byte` (p.844), `decaf::lang::Byte` (p.843), `decaf::lang::Character` (p.985), `decaf::lang::Character` (p.985), `decaf::lang::Double` (p.1542), `decaf::lang::Double` (p.1542), `decaf::lang::Float` (p.1651), `decaf::lang::Float` (p.1651), `decaf::lang::Integer` (p.1767), `decaf::lang::Integer` (p.1767), `decaf::lang::Long` (p.2062), `decaf::lang::Long` (p.2061), `decaf::lang::Short` (p.2909), and `decaf::lang::Short` (p.2909).

**6.182.3.3** `template<typename T> virtual bool decaf::lang::Comparable< T >::operator< (const T & value) const` [pure virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

#### Parameters:

*value* - the value to be compared to this one.

#### Returns:

true if this object is equal to the one passed.

Implemented in `decaf::lang::Boolean` (p.735), `decaf::lang::Boolean` (p.734), `decaf::lang::Byte` (p.845), `decaf::lang::Byte` (p.844), `decaf::lang::Character` (p.987), `decaf::lang::Character` (p.987), `decaf::lang::Double` (p.1544), `decaf::lang::Double` (p.1544),

**decaf::lang::Float** (p. 1654), **decaf::lang::Float** (p. 1654), **decaf::lang::Integer** (p. 1769), **decaf::lang::Integer** (p. 1769), **decaf::lang::Long** (p. 2064), **decaf::lang::Long** (p. 2064), **decaf::lang::Short** (p. 2910), and **decaf::lang::Short** (p. 2910).

**6.182.3.4** `template<typename T> virtual bool decaf::lang::Comparable< T  
>::operator==(const T & value) const [pure virtual]`

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implemented in **decaf::lang::Boolean** (p. 735), **decaf::lang::Boolean** (p. 735), **decaf::lang::Byte** (p. 845), **decaf::lang::Byte** (p. 845), **decaf::lang::Character** (p. 988), **decaf::lang::Character** (p. 987), **decaf::lang::Double** (p. 1544), **decaf::lang::Double** (p. 1544), **decaf::lang::Float** (p. 1654), **decaf::lang::Float** (p. 1654), **decaf::lang::Integer** (p. 1770), **decaf::lang::Integer** (p. 1769), **decaf::lang::Long** (p. 2065), **decaf::lang::Long** (p. 2064), **decaf::lang::Short** (p. 2911), and **decaf::lang::Short** (p. 2911).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Comparable.h`

## 6.183 decaf::util::Comparator< T > Class Template Reference

A comparison function, which imposes a total ordering on some collection of objects.

```
#include <src/main/decaf/util/Comparator.h>
```

### Public Member Functions

- virtual `~Comparator()`
- virtual `bool operator()(const T &left, const T &right) const =0`  
*Implementation of the Binary function interface as a means of allowing a **Comparator** (p. 1086) to be passed to an STL **Map** (p. 2094) for use as the sorting criteria.*
- virtual `int compare(const T &o1, const T &o2) const =0`  
*Compares its two arguments for order.*

### 6.183.1 Detailed Description

```
template<typename T> class decaf::util::Comparator< T >
```

A comparison function, which imposes a total ordering on some collection of objects. Comparators can be passed to a sort method (such as `Collections.sort`) to allow precise control over the sort order. Comparators can also be used to control the order of certain data structures.

The ordering imposed by a **Comparator** (p. 1086) *c* on a set of elements *S* is said to be consistent with equals if and only if ( `compare( e1, e2) == 0` ) has the same boolean value as ( `e1 == e2` ) for every *e1* and *e2* in *S*.

### 6.183.2 Constructor & Destructor Documentation

**6.183.2.1** `template<typename T> virtual decaf::util::Comparator< T >::~Comparator()` [inline, virtual]

### 6.183.3 Member Function Documentation

**6.183.3.1** `template<typename T> virtual int decaf::util::Comparator< T >::compare(const T & o1, const T & o2) const` [pure virtual]

Compares its two arguments for order. Returns a negative integer, zero, or a positive integer as the first argument is less than, equal to, or greater than the second.

The implementor must ensure that `sgn( compare(x, y)) == -sgn(compare(y, x) )` for all *x* and *y*. (This implies that `compare(x, y)` must throw an exception if and only if `compare(y, x)` throws an exception.)

The implementor must also ensure that the relation is transitive: `((compare(x, y)>0) && (compare(y, z)>0))` implies `compare(x, z)>0`.

Finally, the implementer must ensure that `compare(x, y)==0` implies that `sgn(compare(x, z))==sgn(compare(y, z))` for all *z*.



It is generally the case, but not strictly required that `(compare(x, y)==0) == ( x == y )`. Generally speaking, any comparator that violates this condition should clearly indicate this fact. The recommended language is "Note: this comparator imposes orderings that are inconsistent with equals."

**Parameters:**

- o1* - the first object to be compared
- o2* - the second object to be compared

**Returns:**

a negative integer, zero, or a positive integer as the first argument is less than, equal to, or greater than the second.

Implemented in `decaf::util::comparators::Less< E >` (p.1981).

**6.183.3.2 `template<typename T> virtual bool decaf::util::Comparator< T >::operator() (const T & left, const T & right) const` [pure virtual]**

Implementation of the Binary function interface as a means of allowing a **Comparator** (p.1086) to be passed to an STL **Map** (p.2094) for use as the sorting criteria.

**Parameters:**

- left* - the Left hand side operand.
- right* - the Right hand side operand.

**Returns:**

true if the value of left is less than the value of right.

Implemented in `decaf::util::comparators::Less< E >` (p.1982).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Comparator.h`

## 6.184 activemq::util::CompositeData Class Reference

Represents a Composite URI.

```
#include <src/main/activemq/util/CompositeData.h>
```

### Public Member Functions

- **CompositeData** ()
- virtual **~CompositeData** ()
- **StlList< URI > & getComponents** ()
- const **StlList< URI > & getComponents** () const
- void **setComponents** (const **StlList< URI > &components**)
- std::string **getFragment** () const
- void **setFragment** (const std::string &fragment)
- const **Properties & getParameters** () const
- void **setParameters** (const **Properties &parameters**)
- std::string **getScheme** () const
- void **setScheme** (const std::string &scheme)
- std::string **getPath** () const
- void **setPath** (const std::string &path)
- std::string **getHost** () const
- void **setHost** (const std::string &host)
- **URI toURI** () const throw ( decaf::net::URISyntaxException )

### 6.184.1 Detailed Description

Represents a Composite URI.

**Since:**

3.0

## 6.184.2 Constructor & Destructor Documentation

6.184.2.1 `activemq::util::CompositeData::CompositeData ()`

6.184.2.2 `virtual activemq::util::CompositeData::~~CompositeData () [virtual]`

## 6.184.3 Member Function Documentation

6.184.3.1 `const StlList<URI>& activemq::util::CompositeData::getComponents () const [inline]`

6.184.3.2 `StlList<URI>& activemq::util::CompositeData::getComponents () [inline]`

6.184.3.3 `std::string activemq::util::CompositeData::getFragment () const [inline]`

6.184.3.4 `std::string activemq::util::CompositeData::getHost () const [inline]`

6.184.3.5 `const Properties& activemq::util::CompositeData::getParameters () const [inline]`

6.184.3.6 `std::string activemq::util::CompositeData::getPath () const [inline]`

6.184.3.7 `std::string activemq::util::CompositeData::getScheme () const [inline]`

6.184.3.8 `void activemq::util::CompositeData::setComponents (const StlList< URI > & components) [inline]`

6.184.3.9 `void activemq::util::CompositeData::setFragment (const std::string & fragment) [inline]`

6.184.3.10 `void activemq::util::CompositeData::setHost (const std::string & host) [inline]`

6.184.3.11 `void activemq::util::CompositeData::setParameters (const Properties & parameters) [inline]`

6.184.3.12 `void activemq::util::CompositeData::setPath (const std::string & path) [inline]`

6.184.3.13 `void activemq::util::CompositeData::setScheme (const std::string & scheme) [inline]`

6.184.3.14 `URI activemq::util::CompositeData::toURI () const throw ( decaf::net::URISyntaxException )`

The documentation for this class was generated from the following file:

- `src/main/activemq/util/CompositeData.h`

## 6.185 activemq::threads::CompositeTask Class Reference

Represents a single task that can be part of a set of Tasks that are contained in a CompositeTaskRunner (p.1092).

#include <src/main/activemq/threads/CompositeTask.h> Inheritance diagram for activemq::threads::CompositeTask:

### Public Member Functions

- virtual `~CompositeTask ()`
- virtual `bool isPending () const =0`

*Indicates whether this task has any pending work that needs to be done, if not then it is skipped and the next **Task** (p.3148) in the CompositeTaskRunner's list of tasks is checked, if none of the tasks have any pending work to do, then the runner can go to sleep until it awakened by a call to *wakeup*.*

### 6.185.1 Detailed Description

Represents a single task that can be part of a set of Tasks that are contained in a CompositeTaskRunner (p.1092).

Since:

3.0

### 6.185.2 Constructor & Destructor Documentation

**6.185.2.1** `virtual activemq::threads::CompositeTask::~~CompositeTask ()` [inline, virtual]

### 6.185.3 Member Function Documentation

**6.185.3.1** `virtual bool activemq::threads::CompositeTask::isPending () const` [pure virtual]

Indicates whether this task has any pending work that needs to be done, if not then it is skipped and the next **Task** (p.3148) in the CompositeTaskRunner's list of tasks is checked, if none of the tasks have any pending work to do, then the runner can go to sleep until it awakened by a call to *wakeup*.

Since:

3.0

Implemented in `activemq::transport::failover::BackupTransportPool` (p.649), `activemq::transport::failover::CloseTransportsTask` (p.1022), and `activemq::transport::failover::FailoverTransport` (p.1618).

The documentation for this class was generated from the following file:

- `src/main/activemq/threads/CompositeTask.h`

## 6.186 activemq::threads::CompositeTaskRunner Class Reference

A **Task** (p. 3148) Runner that can contain one or more CompositeTasks that are each checked for pending work and run if any is present in the order that the tasks were added.

#include <src/main/activemq/threads/CompositeTaskRunner.h> Inheritance diagram for activemq::threads::CompositeTaskRunner:

### Public Member Functions

- **CompositeTaskRunner** ()
- virtual **~CompositeTaskRunner** ()
- void **addTask** (CompositeTask \*task)  
*Adds a new **CompositeTask** (p. 1090) to the Set of Tasks that this class manages.*
- void **removeTask** (CompositeTask \*task)  
*Removes a **CompositeTask** (p. 1090) that was added previously.*
- virtual void **shutdown** (unsigned int timeout)  
*Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.*
- virtual void **shutdown** ()  
*Shutdown once the task has finished and the TaskRunner's thread has exited.*
- virtual void **wakeup** ()  
*Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.*

### Protected Member Functions

- virtual void **run** ()  
*Run method - called by the Thread class in the context of the thread.*
- virtual bool **iterate** ()  
*Perform one iteration of work, returns true if the task needs to run again to complete or false to indicate that the task is now complete.*

#### 6.186.1 Detailed Description

A **Task** (p. 3148) Runner that can contain one or more CompositeTasks that are each checked for pending work and run if any is present in the order that the tasks were added.

Since:

3.0

## 6.186.2 Constructor & Destructor Documentation

**6.186.2.1** `activemq::threads::CompositeTaskRunner::CompositeTaskRunner ()`

**6.186.2.2** `virtual  
activemq::threads::CompositeTaskRunner::~~CompositeTaskRunner ()  
[virtual]`

## 6.186.3 Member Function Documentation

**6.186.3.1** `void activemq::threads::CompositeTaskRunner::addTask (CompositeTask  
* task)`

Adds a new **CompositeTask** (p. 1090) to the Set of Tasks that this class manages.

### Parameters:

*task* - Pointer to a **CompositeTask** (p. 1090) instance.

**6.186.3.2** `virtual bool activemq::threads::CompositeTaskRunner::iterate ()  
[protected, virtual]`

Perform one iteration of work, returns true if the task needs to run again to complete or false to indicate that the task is now complete.

### Returns:

true if the task should be run again or false if the task has completed and the runner should wait for a wakeup call.

Implements **activemq::threads::Task** (p. 3148).

**6.186.3.3** `void activemq::threads::CompositeTaskRunner::removeTask  
(CompositeTask * task)`

Removes a **CompositeTask** (p. 1090) that was added previously.

### Parameters:

*task* - Pointer to a **CompositeTask** (p. 1090) instance.

**6.186.3.4** `virtual void activemq::threads::CompositeTaskRunner::run ()  
[protected, virtual]`

Run method - called by the Thread class in the context of the thread.

Implements **decaf::lang::Runnable** (p. 2816).

**6.186.3.5** `virtual void activemq::threads::CompositeTaskRunner::shutdown ()  
[virtual]`

Shutdown once the task has finished and the TaskRunner's thread has exited.

Implements **activemq::threads::TaskRunner** (p. 3150).

**6.186.3.6**    **virtual void activemq::threads::CompositeTaskRunner::shutdown**  
                  (unsigned int *timeout*)    [virtual]

Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.

**Parameters:**

*timeout* - Time in Milliseconds to wait for the task to stop.

Implements **activemq::threads::TaskRunner** (p. 3150).

**6.186.3.7**    **virtual void activemq::threads::CompositeTaskRunner::wakeup ()**  
                  [virtual]

Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.

Implements **activemq::threads::TaskRunner** (p. 3151).

The documentation for this class was generated from the following file:

- src/main/activemq/threads/**CompositeTaskRunner.h**



## 6.187 activemq::transport::CompositeTransport Class Reference

A Composite **Transport** (p. 3273) is a **Transport** (p. 3273) implementation that is composed of several Transports.

#include <src/main/activemq/transport/CompositeTransport.h> Inheritance diagram for activemq::transport::CompositeTransport:

### Public Member Functions

- virtual **~CompositeTransport** ()
- virtual void **addURI** (const **List**< **URI** > &uris)=0  
*Add a URI to the list of URI's that will represent the set of Transports that this **Transport** (p. 3273) is a composite of.*
- virtual void **removeURI** (const **List**< **URI** > &uris)=0  
*Remove a URI from the set of URI's that represents the set of Transports that this **Transport** (p. 3273) is composed of, removing a URI for which the composite has created a connected **Transport** (p. 3273) should result in that **Transport** (p. 3273) being disposed of.*

### 6.187.1 Detailed Description

A Composite **Transport** (p. 3273) is a **Transport** (p. 3273) implementation that is composed of several Transports. The composition could be such that only one **Transport** (p. 3273) exists for each URI that is composed or there could be many active Transports working at once.

Since:

3.0

### 6.187.2 Constructor & Destructor Documentation

**6.187.2.1** virtual **activemq::transport::CompositeTransport::~~CompositeTransport** () [inline, virtual]

### 6.187.3 Member Function Documentation

**6.187.3.1** virtual void **activemq::transport::CompositeTransport::addURI** (const **List**< **URI** > & *uris*) [pure virtual]

Add a URI to the list of URI's that will represent the set of Transports that this **Transport** (p. 3273) is a composite of.

**Parameters:**

*uris* The new URI set to add to the set this composite maintains.

Implemented in **activemq::transport::failover::FailoverTransport** (p. 1615).

### 6.187.3.2 virtual void activemq::transport::CompositeTransport::removeURI (const List< URI > & *uris*) [pure virtual]

Remove a URI from the set of URI's that represents the set of Transports that this **Transport** (p. 3273) is composed of, removing a URI for which the composite has created a connected **Transport** (p. 3273) should result in that **Transport** (p. 3273) being disposed of.

#### Parameters:

*uris* The new URI set to remove to the set this composite maintains.

Implemented in **activemq::transport::failover::FailoverTransport** (p. 1619).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/**CompositeTransport.h**

## 6.188 decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR > Class Template Reference

Interface for a **Map** (p. 2094) type that provides additional atomic putIfAbsent, remove, and replace methods alongside the already available **Map** (p. 2094) interface.

#include <src/main/decaf/util/concurrent/ConcurrentMap.h> Inheritance diagram for decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >:

### Public Member Functions

- virtual **~ConcurrentMap** ()
- virtual bool **putIfAbsent** (const K &key, const V &value)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException )

*If the specified key is not already associated with a value, associate it with the given value.*

- virtual bool **remove** (const K &key, const V &value)=0

*Remove entry for key only if currently mapped to given value.*

- virtual bool **replace** (const K &key, const V &oldValue, const V &newValue)=0

*Replace entry for key only if currently mapped to given value.*

- virtual V **replace** (const K &key, const V &value)=0 throw ( decaf::lang::exceptions::NoSuchElementException )

*Replace entry for key only if currently mapped to some value.*

### 6.188.1 Detailed Description

```
template<typename K, typename V, typename COMPARATOR> class  
decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >
```

Interface for a **Map** (p. 2094) type that provides additional atomic putIfAbsent, remove, and replace methods alongside the already available **Map** (p. 2094) interface.

**Since:**

1.0

## 6.188.2 Constructor & Destructor Documentation

**6.188.2.1** `template<typename K, typename V, typename COMPARATOR>  
virtual decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR  
>::~~ConcurrentMap () [inline, virtual]`

## 6.188.3 Member Function Documentation

**6.188.3.1** `template<typename K, typename V, typename COMPARATOR>  
virtual bool decaf::util::concurrent::ConcurrentMap< K, V,  
COMPARATOR >::putIfAbsent (const K & key, const V & value)  
throw ( decaf::lang::exceptions::UnsupportedOperationException ) [pure  
virtual]`

If the specified key is not already associated with a value, associate it with the given value. This is equivalent to

```
if( !map.containsKey( key ) ) {
    map.put( key, value );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

### Parameters:

***key*** The key to map the value to.

***value*** The value to map to the given key.

### Returns:

true if the put operation was performed otherwise return false which indicates there was a value previously mapped to the key.

### Exceptions:

***UnsupportedOperationException*** if the put operation is not supported by this map

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1112), and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1112).

**6.188.3.2** `template<typename K, typename V, typename COMPARATOR> virtual  
 bool decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR  
 >::remove (const K & key, const V & value) [pure virtual]`

Remove entry for key only if currently mapped to given value. Acts as

```
if( ( map.containsKey( key ) && ( map.get( key ) == value ) ) ) {
    map.remove( key );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*value* value associated with the specified key.

**Returns:**

true if the value was removed, false otherwise

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1112), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1112), and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1112).

**6.188.3.3** `template<typename K, typename V, typename COMPARATOR>  
 virtual V decaf::util::concurrent::ConcurrentMap< K, V,  
 COMPARATOR >::replace (const K & key, const V & value) throw (  
 decaf::lang::exceptions::NoSuchElementException ) [pure virtual]`

Replace entry for key only if currently mapped to some value. Acts as

```
if( ( map.containsKey( key ) ) ) {
    return map.put( key, value );
} else {
    throw NoSuchElementException(...);
};
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*value* value to be associated with the specified key.

**Returns:**

copy of the previous value associated with specified key, or throws an `NoSuchElementException` if there was no mapping for key.

**Exceptions:**

*NoSuchElementException* if there was no previous mapping.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1113), and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1113).

**6.188.3.4** `template<typename K, typename V, typename COMPARATOR> virtual bool decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >::replace (const K & key, const V & oldValue, const V & newValue) [pure virtual]`

Replace entry for key only if currently mapped to given value. Acts as

```
if( ( map.containsKey( key ) && ( map.get( key ) == oldValue ) ) ) {
    map.put( key, newValue );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*oldValue* value expected to be associated with the specified key.

*newValue* value to be associated with the specified key.

**Returns:**

true if the value was replaced

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1114), and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1114).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/ConcurrentMap.h`

## 6.189 decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > Class Template Reference

**Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.

#include <src/main/decaf/util/concurrent/ConcurrentStlMap.h> Inheritance diagram for `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >`:

### Public Member Functions

- **ConcurrentStlMap** ()  
*Default constructor - does nothing.*
- **ConcurrentStlMap** (const **ConcurrentStlMap** &source)  
*Copy constructor - copies the content of the given map into this one.*
- **ConcurrentStlMap** (const **Map**< K, V, COMPARATOR > &source)  
*Copy constructor - copies the content of the given map into this one.*
- virtual ~**ConcurrentStlMap** ()
- virtual bool **equals** (const **ConcurrentStlMap** &source) const
- virtual bool **equals** (const **Map**< K, V, COMPARATOR > &source) const  
*Comparison, equality is dependent on the method of determining if the element are equal.*
- virtual void **copy** (const **ConcurrentStlMap** &source)
- virtual void **copy** (const **Map**< K, V, COMPARATOR > &source)  
*Copies the content of the source map into this map.*
- virtual void **clear** () throw ( decaf::lang::exceptions::UnsupportedOperationException )  
*Removes all keys and values from this map.*  
**Exceptions:**  
***UnsupportedOperationException** if this map is unmodifiable.*
- virtual bool **containsKey** (const K &key) const  
*Indicates whether or this map contains a value for the given key.*  
**Parameters:**  
*key The key to look up.*  
**Returns:**  
*true if this map contains the value, otherwise false.*
- virtual bool **containsValue** (const V &value) const



*Indicates whether or this map contains a value for the given value, i.e. they are equal, this is done by operator== so the types must pass equivalence testing in this manner.*

**Parameters:**

*value* The Value to look up.

**Returns:**

*true if this map contains the value, otherwise false.*

- virtual bool **isEmpty** () const

**Returns:**

*if the **Map** (p. 2094) contains any element or not, TRUE or FALSE*

- virtual std::size\_t **size** () const

**Returns:**

*The number of elements (key/value pairs) in this map.*

- virtual V & **get** (const K &key) throw ( lang::exceptions::NoSuchElementException )

*Gets the value mapped to the specified key in the **Map** (p. 2094).*

*If there is no element in the map whose key is equivalent to the key provided then a **NoSuchElementException** is thrown.*

**Parameters:**

*key* The search key.

**Returns:**

*A reference to the value for the given key.*

**Exceptions:**

***NoSuchElementException** if the key requests doesn't exist in the **Map** (p. 2094).*

- virtual const V & **get** (const K &key) const throw ( lang::exceptions::NoSuchElementException )

*Gets the value mapped to the specified key in the **Map** (p. 2094).*

*If there is no element in the map whose key is equivalent to the key provided then a **NoSuchElementException** is thrown.*

**Parameters:**

*key* The search key.

**Returns:**

*A {const} reference to the value for the given key.*

**Exceptions:**

***NoSuchElementException** if the key requests doesn't exist in the **Map** (p. 2094).*

- virtual void **put** (const K &key, const V &value) throw ( decaf::lang::exceptions::UnsupportedOperationException )

*Sets the value for the specified key.*

**Parameters:**

*key* The target key.

*value* The value to be set.

**Exceptions:**

***UnsupportedOperationException** if this map is unmodifiable.*

- virtual void **putAll** (const **ConcurrentStlMap**< K, V, COMPARATOR > &other) throw ( decaf::lang::exceptions::UnsupportedOperationException )

- virtual void **putAll** (const **Map**< K, V, COMPARATOR > &other) throw ( decaf::lang::exceptions::UnsupportedOperationException )

*Stores a copy of the Mappings contained in the other **Map** (p. 2094) in this one.*

**Parameters:**

*other A **Map** (p. 2094) instance whose elements are to all be inserted in this **Map** (p. 2094).*

**Exceptions:**

**UnsupportedOperationException** *If the implementing class does not support the putAll operation.*

- virtual V **remove** (const K &key) throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )

*Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.*

**Parameters:**

*key The search key.*

**Returns:**

*a copy of the element that was previously mapped to the given key*

**Exceptions:**

**NoSuchElementException** *if this key is not in the **Map** (p. 2094).*

**UnsupportedOperationException** *if this map is unmodifiable.*

- virtual std::vector< K > **keySet** () const

*Returns a **Set** (p. 2905) view of the mappings contained in this map.*

*The set is backed by the map, so changes to the map are reflected in the set, and vice-versa. If the map is modified while an iteration over the set is in progress (except through the iterator's own remove operation, or through the setValue operation on a map entry returned by the iterator) the results of the iteration are undefined. The set supports element removal, which removes the corresponding mapping from the map, via the **Iterator.remove** (p. 1833), **Set.remove** (p. 155), **removeAll**, **retainAll** and **clear** operations. It does not support the **add** or **addAll** operations.*

**Returns:**

*the entire set of keys in this map as a std::vector.*

- virtual std::vector< V > **values** () const

**Returns:**

*the entire set of values in this map as a std::vector.*

- bool **putIfAbsent** (const K &key, const V &value) throw ( decaf::lang::exceptions::UnsupportedOperationException )

*If the specified key is not already associated with a value, associate it with the given value.*

- bool **remove** (const K &key, const V &value)

*Remove entry for key only if currently mapped to given value.*

- bool **replace** (const K &key, const V &oldValue, const V &newValue)

*Replace entry for key only if currently mapped to given value.*

- `V replace (const K &key, const V &value) throw ( decaf::lang::exceptions::NoSuchElementException )`  
*Replace entry for key only if currently mapped to some value.*
- `virtual void lock () throw ( decaf::lang::exceptions::RuntimeException )`  
*Locks the object.*
- `virtual bool tryLock () throw ( decaf::lang::exceptions::RuntimeException )`  
*Attempts to **Lock** (p. 2023) the object, if the lock is already held by another thread than this method returns false.*
- `virtual void unlock () throw ( decaf::lang::exceptions::RuntimeException )`  
*Unlocks the object.*
- `virtual void wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )`  
*Waits on a signal from this object, which is generated by a call to Notify.*
- `virtual void wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )`  
*Waits on a signal from this object, which is generated by a call to Notify.*
- `virtual void wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )`  
*Waits on a signal from this object, which is generated by a call to Notify.*
- `virtual void notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )`  
*Signals a waiter on this object that it can now wake up and continue.*
- `virtual void notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )`  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.189.1 Detailed Description

`template<typename K, typename V, typename COMPARATOR = std::less<K>>`  
`class decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >`

**Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`. This version of **Map** (p. 2094) extends the **ConcurrentMap** (p. 1097) interface and implements all the methods defined in that interface. Unlike a Java `ConcurrentHashMap` this implementations synchronizes all methods such that any call to this class will block if another thread is already holding a lock, much like the Java `HashTable`.

Since:

1.0

## 6.189.2 Constructor & Destructor Documentation

**6.189.2.1** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::ConcurrentStlMap () [inline]`

Default constructor - does nothing.

**6.189.2.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::ConcurrentStlMap (const ConcurrentStlMap< K, V, COMPARATOR > & source) [inline]`

Copy constructor - copies the content of the given map into this one.

**Parameters:**

*source* The source map.

**6.189.2.3** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::ConcurrentStlMap (const Map< K, V, COMPARATOR > & source) [inline]`

Copy constructor - copies the content of the given map into this one.

**Parameters:**

*source* The source map.

**6.189.2.4** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::~~ConcurrentStlMap () [inline, virtual]`

## 6.189.3 Member Function Documentation

**6.189.3.1** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::clear () throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Removes all keys and values from this map.

**Exceptions:**

*UnsupportedOperationException* if this map is unmodifiable.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2095).

Referenced by `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::copy()`.

**6.189.3.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::containsKey (const K & key) const [inline, virtual]`

Indicates whether or this map contains a value for the given key.

**Parameters:**

*key* The key to look up.

**Returns:**

true if this map contains the value, otherwise false.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2096).

Referenced by `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::equals()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::putIfAbsent()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::remove()`, and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::replace()`.

**6.189.3.3** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::containsValue (const V & value) const [inline, virtual]`

Indicates whether or this map contains a value for the given value, i.e.

they are equal, this is done by operator== so the types must pass equivalence testing in this manner.

**Parameters:**

*value* The Value to look up.

**Returns:**

true if this map contains the value, otherwise false.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2097).

**6.189.3.4** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::copy (const Map< K, V, COMPARATOR > & source) [inline, virtual]`

Copies the content of the source map into this map. Erases all existing data in this map.

**Parameters:**

*source* The source object to copy from.

Implements **decaf::util::Map**< **K**, **V**, **COMPARATOR** > (p. 2098).

**6.189.3.5** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::copy (const ConcurrentStlMap< K, V, COMPARATOR > & source) [inline, virtual]`

Referenced by **decaf::util::concurrent::ConcurrentStlMap**< **Pointer**< **ProducerId** >, **Pointer**< **ProducerState** >, **ProducerId::COMPARATOR** >::**ConcurrentStlMap**() .

**6.189.3.6** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::equals (const Map< K, V, COMPARATOR > & source) const [inline, virtual]`

Comparison, equality is dependent on the method of determining if the element are equal.

**Parameters:**

*source* - **Map** (p. 2094) to compare to this one.

**Returns:**

true if the **Map** (p. 2094) passed is equal in value to this one.

Implements **decaf::util::Map**< **K**, **V**, **COMPARATOR** > (p. 2098).

**6.189.3.7** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::equals (const ConcurrentStlMap< K, V, COMPARATOR > & source) const [inline, virtual]`

**6.189.3.8** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual const V& decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::get (const K & key) const throw ( lang::exceptions::NoSuchElementException ) [inline, virtual]`

Gets the value mapped to the specified key in the **Map** (p. 2094).

If there is no element in the map whose key is equivalent to the key provided then a **NoSuchElementException** is thrown.

**Parameters:**

*key* The search key.

**Returns:**

A {const} reference to the value for the given key.

**Exceptions:**

*NoSuchElementException* if the key requests doesn't exist in the **Map** (p. 2094).

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2098).

**6.189.3.9** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual V& decaf::util::concurrent::ConcurrentStlMap<  
K, V, COMPARATOR >::get (const K & key) throw (  
lang::exceptions::NoSuchElementException ) [inline, virtual]`

Gets the value mapped to the specified key in the **Map** (p. 2094).

If there is no element in the map whose key is equivalent to the key provided then a *NoSuchElementException* is thrown.

**Parameters:**

*key* The search key.

**Returns:**

A reference to the value for the given key.

**Exceptions:**

*NoSuchElementException* if the key requests doesn't exist in the **Map** (p. 2094).

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2099).

**6.189.3.10** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap<  
K, V, COMPARATOR >::isEmpty () const [inline, virtual]`

**Returns:**

if the **Map** (p. 2094) contains any element or not, TRUE or FALSE

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2100).

**6.189.3.11** `template<typename K, typename V, typename  
COMPARATOR = std::less<K>> virtual std::vector<K>  
decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR  
>::keySet () const [inline, virtual]`

Returns a **Set** (p. 2905) view of the mappings contained in this map.

The set is backed by the map, so changes to the map are reflected in the set, and vice-versa. If the map is modified while an iteration over the set is in progress (except through the iterator's own remove operation, or through the setValue operation on a map entry returned by the iterator) the results of the iteration are undefined. The set supports element removal, which removes the corresponding mapping from the map, via the **Iterator.remove** (p. 1833), **Set.remove** (p. 155), **removeAll**, **retainAll** and **clear** operations. It does not support the **add** or **addAll** operations.

**Returns:**

the entire set of keys in this map as a `std::vector`.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2101).

```
6.189.3.12  template<typename K, typename V, typename
             COMPARATOR = std::less<K>> virtual void
             decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR
             >::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline,
             virtual]
```

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

```
6.189.3.13  template<typename K, typename V, typename
             COMPARATOR = std::less<K>> virtual void
             decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR
             >::notify () throw ( decaf::lang::exceptions::RuntimeException,
             decaf::lang::exceptions::IllegalMonitorStateException ) [inline,
             virtual]
```

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

```
6.189.3.14  template<typename K, typename V, typename
             COMPARATOR = std::less<K>> virtual void
             decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR
             >::notifyAll () throw ( decaf::lang::exceptions::RuntimeException,
             decaf::lang::exceptions::IllegalMonitorStateException ) [inline,
             virtual]
```

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3125).



**6.189.3.15** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::put (const K & key, const V & value) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Sets the value for the specified key.

**Parameters:**

*key* The target key.  
*value* The value to be set.

**Exceptions:**

*UnsupportedOperationException* if this map is unmodifiable.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2102).

Referenced by `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::putAll()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::putIfAbsent()`, and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::replace()`.

**6.189.3.16** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::putAll (const Map< K, V, COMPARATOR > & other) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Stores a copy of the Mappings contained in the other **Map** (p. 2094) in this one.

**Parameters:**

*other* A **Map** (p. 2094) instance whose elements are to all be inserted in this **Map** (p. 2094).

**Exceptions:**

*UnsupportedOperationException* If the implementing class does not support the putAll operation.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2102).

**6.189.3.17** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::putAll (const ConcurrentStlMap< K, V, COMPARATOR > & other) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Referenced by `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::copy()`.

**6.189.3.18** `template<typename K, typename V, typename COMPARATOR = std::less<K>> bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::putIfAbsent (const K & key, const V & value) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

If the specified key is not already associated with a value, associate it with the given value. This is equivalent to

```
if( !map.containsKey( key ) ) {
    map.put( key, value );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

**Parameters:**

*key* The key to map the value to.

*value* The value to map to the given key.

**Returns:**

true if the put operation was performed otherwise return false which indicates there was a value previously mapped to the key.

**Exceptions:**

*UnsupportedOperationException* if the put operation is not supported by this map

Implements `decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >` (p. 1098).

**6.189.3.19** `template<typename K, typename V, typename COMPARATOR = std::less<K>> bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::remove (const K & key, const V & value) [inline, virtual]`

Remove entry for key only if currently mapped to given value. Acts as

```
if( map.containsKey( key ) && ( map.get( key ) == value ) ) {
    map.remove( key );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*value* value associated with the specified key.

**Returns:**

true if the value was removed, false otherwise

Implements `decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >` (p. 1099).

**6.189.3.20** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual V decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::remove (const K & key) throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.

**Parameters:**

*key* The search key.

**Returns:**

a copy of the element that was previously mapped to the given key

**Exceptions:**

*NoSuchElementException* if this key is not in the **Map** (p. 2094).

*UnsupportedOperationException* if this map is unmodifiable.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2103).

**6.189.3.21** `template<typename K, typename V, typename COMPARATOR = std::less<K>> V decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::replace (const K & key, const V & value) throw ( decaf::lang::exceptions::NoSuchElementException ) [inline, virtual]`

Replace entry for key only if currently mapped to some value. Acts as

```
if( map.containsKey( key ) ) {
    return map.put( key, value );
} else {
    throw NoSuchElementException(...);
};
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*value* value to be associated with the specified key.

**Returns:**

copy of the previous value associated with specified key, or throws an `NoSuchElementException` if there was no mapping for key.

**Exceptions:**

*NoSuchElementException* if there was no previous mapping.

Implements `decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >` (p. 1099).

**6.189.3.22** `template<typename K, typename V, typename COMPARATOR = std::less<K>> bool decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::replace (const K & key, const V & oldValue, const V & newValue) [inline, virtual]`

Replace entry for key only if currently mapped to given value. Acts as

```
if( map.containsKey( key ) && ( map.get( key ) == oldValue ) ) {
    map.put( key, newValue );
    return true;
} else {
    return false;
}
```

except that the action is performed atomically.

**Parameters:**

*key* key with which the specified value is associated.

*oldValue* value expected to be associated with the specified key.

*newValue* value to be associated with the specified key.

**Returns:**

true if the value was replaced

Implements `decaf::util::concurrent::ConcurrentMap< K, V, COMPARATOR >` (p. 1100).

**6.189.3.23** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual std::size_t decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >::size () const [inline, virtual]`

**Returns:**

The number of elements (key/value pairs) in this map.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2104).

**6.189.3.24** `template<typename K, typename V, typename COMPARATOR =  
 std::less<K>> virtual bool decaf::util::concurrent::ConcurrentStlMap<  
 K, V, COMPARATOR >::tryLock () throw (  
 decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to **Lock** (p.2023) the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p.3126).

**6.189.3.25** `template<typename K, typename V, typename COMPARATOR =  
 std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap<  
 K, V, COMPARATOR >::unlock () throw (  
 decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p.3127).

**6.189.3.26** `template<typename K, typename V, typename  
 COMPARATOR = std::less<K>> virtual std::vector<V>  
 decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR  
 >::values () const [inline, virtual]`

**Returns:**

the entire set of values in this map as a `std::vector`.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p.2105).

Referenced by `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::values()`.

**6.189.3.27** `template<typename K, typename V, typename COMPARATOR =  
 std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap<  
 K, V, COMPARATOR >::wait (long long milliseconds, int  
nanos) throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalArgumentException,  
 decaf::lang::exceptions::IllegalMonitorStateException,  
 decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to `Notify`. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is

similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

```
6.189.3.28  template<typename K, typename V, typename COMPARATOR =
            std::less<K>> virtual void decaf::util::concurrent::ConcurrentStlMap<
            K, V, COMPARATOR >::wait (long long milliseconds)
            throw ( decaf::lang::exceptions::RuntimeException,
                    decaf::lang::exceptions::IllegalMonitorStateException,
                    decaf::lang::exceptions::InterruptedException ) [inline, virtual]
```

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

```
6.189.3.29  template<typename K, typename V, typename
            COMPARATOR = std::less<K>> virtual void
            decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR
            >::wait () throw ( decaf::lang::exceptions::RuntimeException,
                    decaf::lang::exceptions::IllegalMonitorStateException,
                    decaf::lang::exceptions::InterruptedException ) [inline, virtual]
```

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**ConcurrentStlMap.h**

## 6.190 decaf::util::concurrent::locks::Condition Class Reference

**Condition** (p. 1118) factors out the **Mutex** (p. 2385) monitor methods (wait, notify and notifyAll) into distinct objects to give the effect of having multiple wait-sets per object, by combining them with the use of arbitrary **Lock** (p. 2017) implementations.

```
#include <src/main/decaf/util/concurrent/locks/Condition.h>
```

### Public Member Functions

- virtual `~Condition` ()
- virtual void **await** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Causes the current thread to wait until it is signaled or interrupted.*
- virtual void **awaitUninterruptibly** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Causes the current thread to wait until it is signalled.*
- virtual long long **awaitNanos** (long long nanosTimeout)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Causes the current thread to wait until it is signaled or interrupted, or the specified waiting time elapses.*
- virtual bool **await** (long long time, const **TimeUnit** &unit)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Causes the current thread to wait until it is signaled or interrupted, or the specified waiting time elapses.*
- virtual bool **awaitUntil** (const **Date** &deadline)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException )
- virtual void **signal** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Wakes up one waiting thread.*
- virtual void **signalAll** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Wakes up all waiting threads.*

### 6.190.1 Detailed Description

**Condition** (p. 1118) factors out the **Mutex** (p. 2385) monitor methods (wait, notify and notifyAll) into distinct objects to give the effect of having multiple wait-sets per object, by combining them with the use of arbitrary **Lock** (p. 2017) implementations. Where a **Lock** (p. 2017) replaces the use of synchronized statements, a **Condition** (p. 1118) replaces the use of the Object monitor methods.



Conditions (also known as condition queues or condition variables) provide a means for one thread to suspend execution (to "wait") until notified by another thread that some state condition may now be true. Because access to this shared state information occurs in different threads, it must be protected, so a lock of some form is associated with the condition. The key property that waiting for a condition provides is that it atomically releases the associated lock and suspends the current thread.

A **Condition** (p. 1118) instance is intrinsically bound to a lock. To obtain a **Condition** (p. 1118) instance for a particular **Lock** (p. 2017) instance use its `newCondition()` method.

As an example, suppose we have a bounded buffer which supports put and take methods. If a take is attempted on an empty buffer, then the thread will block until an item becomes available; if a put is attempted on a full buffer, then the thread will block until a space becomes available. We would like to keep waiting put threads and take threads in separate wait-sets so that we can use the optimization of only notifying a single thread at a time when items or spaces become available in the buffer. This can be achieved using two **Condition** (p. 1118) instances.

```
class BoundedBuffer { Lock* lock = new ReentrantLock(); Condition* notFull = lock->newCondition(); Condition* notEmpty = lock->newCondition();
```

```
Object* items = new Object[100]; int putptr, takeptr, count;
```

```
public void put( Object* x ) throw( InterruptedException ) { lock->lock(); try { while( count == 100 ) notFull->await() (p. 1120); items[putptr] = x; if ( ++putptr == 100 ) putptr = 0; ++count; notEmpty->signal() (p. 1123); } catch(...) { lock->unlock(); } }
```

```
public Object take() throw( InterruptedException ) { lock->lock(); try { while(count == 0) notEmpty->await() (p. 1120); Object x = items[takeptr]; if ( ++takeptr == 100 ) takeptr = 0; --count; notFull->signal() (p. 1123); return x; } catch(...) { lock->unlock(); } }
```

(The `ArrayBlockingQueue` class provides this functionality, so there is no reason to implement this sample usage class.)

#### Implementation Considerations

When waiting upon a **Condition** (p. 1118), a "spurious wakeup" is permitted to occur, in general, as a concession to the underlying platform semantics. This has little practical impact on most application programs as a **Condition** (p. 1118) should always be waited upon in a loop, testing the state predicate that is being waited for. An implementation is free to remove the possibility of spurious wakeups but it is recommended that applications programmers always assume that they can occur and so always wait in a loop.

The three forms of condition waiting (interruptible, non-interruptible, and timed) may differ in their ease of implementation on some platforms and in their performance characteristics. In particular, it may be difficult to provide these features and maintain specific semantics such as ordering guarantees. Further, the ability to interrupt the actual suspension of the thread may not always be feasible to implement on all platforms.

Consequently, an implementation is not required to define exactly the same guarantees or semantics for all three forms of waiting, nor is it required to support interruption of the actual suspension of the thread.

An implementation is required to clearly document the semantics and guarantees provided by each of the waiting methods, and when an implementation does support interruption of thread suspension then it must obey the interruption semantics as defined in this interface.

As interruption generally implies cancellation, and checks for interruption are often infrequent, an implementation can favor responding to an interrupt over normal method return. This is true even if it can be shown that the interrupt occurred after another action may have unblocked the thread. An implementation should document this behavior.

Since:

1.0

## 6.190.2 Constructor & Destructor Documentation

**6.190.2.1** `virtual decaf::util::concurrent::locks::Condition::~~Condition () [inline, virtual]`

## 6.190.3 Member Function Documentation

**6.190.3.1** `virtual bool decaf::util::concurrent::locks::Condition::await (long long time, const TimeUnit & unit) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]`

Causes the current thread to wait until it is signaled or interrupted, or the specified waiting time elapses. This method is behaviorally equivalent to:

```
awaitNanos(unit.toNanos(time)) > 0
```

**Parameters:**

*time* - the maximum time to wait

*unit* - the time unit of the time argument

**Returns:**

false if the waiting time detectably elapsed before return from the method, else true

**Exceptions:**

***RuntimeException*** if an unexpected error occurs while trying to wait on the **Condition** (p. 1118).

***InterruptedException*** if the current thread is interrupted (and interruption of thread suspension is supported)

***IllegalMonitorStateException*** if the caller is not the lock owner.

**6.190.3.2** `virtual void decaf::util::concurrent::locks::Condition::await () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]`

Causes the current thread to wait until it is signaled or interrupted. The lock associated with this **Condition** (p. 1118) is atomically released and the current thread becomes disabled for thread scheduling purposes and lies dormant until one of four things happens:

\* Some other thread invokes the **signal()** (p. 1123) method for this **Condition** (p. 1118) and the current thread happens to be chosen as the thread to be awakened; or \* Some other thread invokes the **signalAll()** (p. 1123) method for this **Condition** (p. 1118); or \* Some other thread interrupts the current thread, and interruption of thread suspension is supported; or \* A "spurious wakeup" occurs.

In all cases, before this method can return the current thread must re-acquire the lock associated with this condition. When the thread returns it is guaranteed to hold this lock.

If the current thread:

- \* has its interrupted status set on entry to this method; or \* is interrupted while waiting and interruption of thread suspension is supported,

then InterruptedException is thrown and the current thread's interrupted status is cleared. It is not specified, in the first case, whether or not the test for interruption occurs before the lock is released.

#### Implementation Considerations

The current thread is assumed to hold the lock associated with this **Condition** (p.1118) when this method is called. It is up to the implementation to determine if this is the case and if not, how to respond. Typically, an exception will be thrown (such as IllegalMonitorStateException) and the implementation must document that fact.

An implementation can favor responding to an interrupt over normal method return in response to a signal. In that case the implementation must ensure that the signal is redirected to another waiting thread, if there is one.

#### Exceptions:

**RuntimeException** if an unexpected error occurs while trying to wait on the **Condition** (p.1118).

**InterruptedException** if the current thread is interrupted (and interruption of thread suspension is supported)

**IllegalMonitorStateException** if the caller is not the lock owner.

**6.190.3.3** `virtual long long decaf::util::concurrent::locks::Condition::awaitNanos (long long nanosTimeout) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]`

Causes the current thread to wait until it is signaled or interrupted, or the specified waiting time elapses. The lock associated with this condition is atomically released and the current thread becomes disabled for thread scheduling purposes and lies dormant until one of five things happens:

- \* Some other thread invokes the **signal()** (p.1123) method for this **Condition** (p.1118) and the current thread happens to be chosen as the thread to be awakened; or
- \* Some other thread invokes the **signalAll()** (p.1123) method for this **Condition** (p.1118); or
- \* Some other thread interrupts the current thread, and interruption of thread suspension is supported; or
- \* The specified waiting time elapses; or
- \* A "spurious wakeup" occurs.

In all cases, before this method can return the current thread must re-acquire the lock associated with this condition. When the thread returns it is guaranteed to hold this lock.

If the current thread:

- \* has its interrupted status set on entry to this method; or \* is interrupted while waiting and interruption of thread suspension is supported,

then InterruptedException is thrown and the current thread's interrupted status is cleared. It is not specified, in the first case, whether or not the test for interruption occurs before the lock is released.

The method returns an estimate of the number of nanoseconds remaining to wait given the supplied `nanosTimeout` value upon return, or a value less than or equal to zero if it timed out. This value can be used to determine whether and how long to re-wait in cases where the wait returns but an awaited condition still does not hold. Typical uses of this method take the following form:

```
synchronized boolean aMethod( long timeout, const TimeUnit& unit ) { long nanosTimeout =
unit.toNanos(timeout); while (!conditionBeingWaitedFor) { if (nanosTimeout > 0) nanosTimeout =
theCondition->awaitNanos(nanosTimeout); else return false; } // ... }
```

Design note: This method requires a nanosecond argument so as to avoid truncation errors in reporting remaining times. Such precision loss would make it difficult for programmers to ensure that total waiting times are not systematically shorter than specified when re-waits occur.

#### Implementation Considerations

The current thread is assumed to hold the lock associated with this **Condition** (p.1118) when this method is called. It is up to the implementation to determine if this is the case and if not, how to respond. Typically, an exception will be thrown (such as `IllegalMonitorStateException`) and the implementation must document that fact.

An implementation can favor responding to an interrupt over normal method return in response to a signal, or over indicating the elapse of the specified waiting time. In either case the implementation must ensure that the signal is redirected to another waiting thread, if there is one.

#### Parameters:

***nanosTimeout*** - the maximum time to wait, in nanoseconds

#### Returns:

an estimate of the `nanosTimeout` value minus the time spent waiting upon return from this method. A positive value may be used as the argument to a subsequent call to this method to finish waiting out the desired time. A value less than or equal to zero indicates that no time remains.

#### Exceptions:

***RuntimeException*** if an unexpected error occurs while trying to wait on the **Condition** (p.1118).

***InterruptedException*** if the current thread is interrupted (and interruption of thread suspension is supported)

***IllegalMonitorStateException*** if the caller is not the lock owner.

**6.190.3.4 virtual void decaf::util::concurrent::locks::Condition::awaitUninterruptibly()** **throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )** [pure virtual]

Causes the current thread to wait until it is signalled. The lock associated with this condition is atomically released and the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

\* Some other thread invokes the **signal()** (p.1123) method for this **Condition** (p.1118) and the current thread happens to be chosen as the thread to be awakened; or \* Some other thread invokes the **signalAll()** (p.1123) method for this **Condition** (p.1118); or \* A "spurious wakeup" occurs.

In all cases, before this method can return the current thread must re-acquire the lock associated with this condition. When the thread returns it is guaranteed to hold this lock.

If the current thread's interrupted status is set when it enters this method, or it is interrupted while waiting, it will continue to wait until signalled. When it finally returns from this method its interrupted status will still be set.

#### Implementation Considerations

The current thread is assumed to hold the lock associated with this **Condition** (p.1118) when this method is called. It is up to the implementation to determine if this is the case and if not, how to respond. Typically, an exception will be thrown (such as `IllegalMonitorStateException`) and the implementation must document that fact.

#### Exceptions:

***RuntimeException*** if an unexpected error occurs while trying to wait on the **Condition** (p.1118).

***IllegalMonitorStateException*** if the caller is not the lock owner.

**6.190.3.5** `virtual bool decaf::util::concurrent::locks::Condition::awaitUntil (const Date & deadline) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]`

**6.190.3.6** `virtual void decaf::util::concurrent::locks::Condition::signal () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]`

Wakes up one waiting thread. If any threads are waiting on this condition then one is selected for waking up. That thread must then re-acquire the lock before returning from await.

#### Exceptions:

***RuntimeException*** if an unexpected error occurs while trying to wait on the **Condition** (p.1118).

**6.190.3.7** `virtual void decaf::util::concurrent::locks::Condition::signalAll () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]`

Wakes up all waiting threads. If any threads are waiting on this condition then they are all woken up. Each thread must re-acquire the lock before it can return from await.

#### Exceptions:

***RuntimeException*** if an unexpected error occurs while trying to wait on the **Condition** (p.1118).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/locks/Condition.h`

## 6.191 decaf::util::concurrent::ConditionHandle Class Reference

```
#include <src/main/decaf/internal/util/concurrent/unix/ConditionHandle.h>
```

### Public Member Functions

- **ConditionHandle** ()
- **~ConditionHandle** ()
- **ConditionHandle** ()
- **~ConditionHandle** ()

### Data Fields

- pthread\_cond\_t **condition**
- MutexHandle \* **mutex**
- HANDLE **semaphore**
- CRITICAL\_SECTION **criticalSection**
- volatile unsigned int **numWaiting**
- volatile unsigned int **numWake**
- volatile unsigned int **generation**

### 6.191.1 Constructor & Destructor Documentation

6.191.1.1 **decaf::util::concurrent::ConditionHandle::ConditionHandle** () [inline]

6.191.1.2 **decaf::util::concurrent::ConditionHandle::~~ConditionHandle** () [inline]

6.191.1.3 **decaf::util::concurrent::ConditionHandle::ConditionHandle** () [inline]

6.191.1.4 **decaf::util::concurrent::ConditionHandle::~~ConditionHandle** () [inline]

### 6.191.2 Field Documentation

6.191.2.1 pthread\_cond\_t **decaf::util::concurrent::ConditionHandle::condition**

6.191.2.2 CRITICAL\_SECTION **decaf::util::concurrent::ConditionHandle::criticalSection**

6.191.2.3 volatile unsigned int **decaf::util::concurrent::ConditionHandle::generation**

6.191.2.4 MutexHandle \* **decaf::util::concurrent::ConditionHandle::mutex**

6.191.2.5 volatile unsigned int **decaf::util::concurrent::ConditionHandle::numWaiting**

6.191.2.6 volatile unsigned int **decaf::util::concurrent::ConditionHandle::numWake**

6.191.2.7 HANDLE **decaf::util::concurrent::ConditionHandle::semaphore**

The documentation for this class was generated from the following files:

- src/main/decaf/internal/util/concurrent/unix/ConditionHandle.h
- src/main/decaf/internal/util/concurrent/windows/ConditionHandle.h

## 6.192 decaf::internal::util::concurrent::ConditionImpl Class Reference

```
#include <src/main/decaf/internal/util/concurrent/ConditionImpl.h>
```

### Static Public Member Functions

- static **decaf::util::concurrent::ConditionHandle** \* **create** (**decaf::util::concurrent::MutexHandle** \*mutex)  
*Creates the Condition object and attaches it to the given MutexHandle.*
- static void **destroy** (**decaf::util::concurrent::ConditionHandle** \*handle)  
*Destroy a previously create Condition instance.*
- static void **wait** (**decaf::util::concurrent::ConditionHandle** \*condition)  
*Waits for the condition to be signaled.*
- static void **wait** (**decaf::util::concurrent::ConditionHandle** \*condition, long long mills, long long nanos)  
*Waits for the condition to be signaled or for the time specified to ellapse.*
- static void **notify** (**decaf::util::concurrent::ConditionHandle** \*condition)  
*Signals one Thread that is waiting on this condition to wake up.*
- static void **notifyAll** (**decaf::util::concurrent::ConditionHandle** \*condition)  
*Signals all Threads that is waiting on this condition to wake up.*

### 6.192.1 Member Function Documentation

**6.192.1.1** static **decaf::util::concurrent::ConditionHandle\***  
**decaf::internal::util::concurrent::ConditionImpl::create**  
(**decaf::util::concurrent::MutexHandle** \* *mutex*) [static]

Creates the Condition object and attaches it to the given MutexHandle.

#### Parameters:

*mutex* the Mutex handle that this Condition is attached to.

#### Returns:

a newly constructed Condition handle that is attached to the given handle.

**6.192.1.2** static void **decaf::internal::util::concurrent::ConditionImpl::destroy**  
(**decaf::util::concurrent::ConditionHandle** \* *handle*) [static]

Destroy a previously create Condition instance.

#### Parameters:

*handle* The Condition handle to be destroyed.



**6.192.1.3 static void decaf::internal::util::concurrent::ConditionImpl::notify**  
(decaf::util::concurrent::ConditionHandle \* *condition*) [static]

Signals one Thread that is waiting on this condition to wake up.

**Parameters:**

*condition* the handle to the condition to wait on.

**6.192.1.4 static void decaf::internal::util::concurrent::ConditionImpl::notifyAll**  
(decaf::util::concurrent::ConditionHandle \* *condition*) [static]

Signals all Threads that is waiting on this condition to wake up.

**Parameters:**

*condition* the handle to the condition to wait on.

**6.192.1.5 static void decaf::internal::util::concurrent::ConditionImpl::wait**  
(decaf::util::concurrent::ConditionHandle \* *condition*, long long *mills*,  
long long *nanos*) [static]

Waits for the condition to be signaled or for the time specified to ellapse.

**Parameters:**

*condition* the handle to the condition to wait on.

*mills* the time in milliseconds to wait for the condition to be signaled.

*nanos* additional time in nanoseconds to wait for the thread to be signaled.

**6.192.1.6 static void decaf::internal::util::concurrent::ConditionImpl::wait**  
(decaf::util::concurrent::ConditionHandle \* *condition*) [static]

Waits for the condition to be signaled.

**Parameters:**

*condition* the handle to the condition to wait on.

The documentation for this class was generated from the following file:

- src/main/decaf/internal/util/concurrent/ConditionImpl.h

## 6.193 decaf::net::ConnectException Class Reference

#include <src/main/decaf/net/ConnectException.h> Inheritance diagram for decaf::net::ConnectException:

### Public Member Functions

- **ConnectException** () throw ()  
*Default Constructor.*
- **ConnectException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **ConnectException** (const **ConnectException** &ex) throw ()  
*Copy Constructor.*
- **ConnectException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **ConnectException** (const std::exception \*cause) throw ()  
*Constructor.*
- **ConnectException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **ConnectException** \* **clone** () const  
*Clones this exception.*
- virtual ~**ConnectException** () throw ()

### 6.193.1 Constructor & Destructor Documentation

#### 6.193.1.1 decaf::net::ConnectException::ConnectException () throw () [inline]

Default Constructor.

#### 6.193.1.2 decaf::net::ConnectException::ConnectException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.193.1.3 decaf::net::ConnectException::ConnectException (const ConnectException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.193.1.4 decaf::net::ConnectException::ConnectException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.193.1.5 decaf::net::ConnectException::ConnectException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.193.1.6 decaf::net::ConnectException::ConnectException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.193.1.7**    `virtual decaf::net::ConnectException::~~ConnectException () throw ()`  
                  `[inline, virtual]`

## **6.193.2    Member Function Documentation**

**6.193.2.1**    `virtual ConnectException* decaf::net::ConnectException::clone () const`  
                  `[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::net::SocketException** (p. 2973).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/ConnectException.h`

## 6.194 cms::Connection Class Reference

The client's connection to its provider.

#include <src/main/cms/Connection.h> Inheritance diagram for cms::Connection:

### Public Member Functions

- virtual **~Connection** ()
- virtual void **close** ()=0 throw ( CMSEException )  
*Closes this connection as well as any Sessions created from it (and those Sessions' consumers and producers).*
- virtual const **ConnectionMetaData** \* **getMetaData** () const =0 throw ( CMSEException )  
*Gets the metadata for this connection.*
- virtual **Session** \* **createSession** ()=0 throw ( CMSEException )  
*Creates an **AUTO\_ACKNOWLEDGE Session** (p. 2839).*
- virtual **Session** \* **createSession** (**Session::AcknowledgeMode** ackMode)=0 throw ( CMSEException )  
*Creates a new **Session** (p. 2839) to work for this **Connection** (p. 1131) using the specified acknowledgment mode.*
- virtual std::string **getClientID** () const =0  
*Get the Client Id for this session.*
- virtual **ExceptionListener** \* **getExceptionListener** () const =0  
*Gets the registered Exception Listener for this connection.*
- virtual void **setExceptionListener** (**ExceptionListener** \*listener)=0  
*Sets the registered Exception Listener for this connection.*

### 6.194.1 Detailed Description

The client's connection to its provider. Connections support concurrent use.

A connection serves several purposes:

- It encapsulates an open connection with a JMS provider. It typically represents an open TCP/IP socket between a client and the service provider software.
- Its creation is where client authentication takes place.
- It can specify a unique client identifier.
- It provides a **ConnectionMetaData** (p. 1237) object.
- It supports an optional **ExceptionListener** (p. 1581) object.

Because the creation of a connection involves setting up authentication and communication, a connection is a relatively heavy-weight object. Most clients will do all their messaging with a single connection. Other more advanced applications may use several connections. The CMS API does not architect a reason for using multiple connections; however, there may be operational reasons for doing so.

A CMS client typically creates a connection, one or more sessions, and a number of message producers and consumers. When a connection is created, it is in stopped mode. That means that no messages are being delivered.

It is typical to leave the connection in stopped mode until setup is complete (that is, until all message consumers have been created). At that point, the client calls the connection's start method, and messages begin arriving at the connection's consumers. This setup convention minimizes any client confusion that may result from asynchronous message delivery while the client is still in the process of setting itself up.

A connection can be started immediately, and the setup can be done afterwards. Clients that do this must be prepared to handle asynchronous message delivery while they are still in the process of setting up.

A message producer can send messages while a connection is stopped.

#### Since:

1.0

## 6.194.2 Constructor & Destructor Documentation

**6.194.2.1** `virtual cms::Connection::~~Connection () [inline, virtual]`

## 6.194.3 Member Function Documentation

**6.194.3.1** `virtual void cms::Connection::close () throw ( CMSException ) [pure virtual]`

Closes this connection as well as any Sessions created from it (and those Sessions' consumers and producers).

#### Exceptions:

*CMSException* (p. 1031)

Implements `cms::Closeable` (p. 1021).

Implemented in `activemq::core::ActiveMQConnection` (p. 236).

**6.194.3.2** `virtual Session* cms::Connection::createSession (Session::AcknowledgeMode ackMode) throw ( CMSException ) [pure virtual]`

Creates a new `Session` (p. 2839) to work for this `Connection` (p. 1131) using the specified acknowledgment mode.

#### Parameters:

*ackMode* the Acknowledgment Mode to use.

**Exceptions:**

*CMSEException* (p. 1031)

Implemented in **activemq::core::ActiveMQConnection** (p. 237).

**6.194.3.3** `virtual Session* cms::Connection::createSession () throw ( CMSEException ) [pure virtual]`

Creates an AUTO\_ACKNOWLEDGE Session (p. 2839).

**Exceptions:**

*CMSEException* (p. 1031)

Implemented in **activemq::core::ActiveMQConnection** (p. 237).

**6.194.3.4** `virtual std::string cms::Connection::getClientID () const [pure virtual]`

Get the Client Id for this session.

**Returns:**

Client Id String

Implemented in **activemq::core::ActiveMQConnection** (p. 238).

**6.194.3.5** `virtual ExceptionListener* cms::Connection::getExceptionListener () const [pure virtual]`

Gets the registered Exception Listener for this connection.

**Returns:**

pointer to an exception listener or NULL

Implemented in **activemq::core::ActiveMQConnection** (p. 239).

**6.194.3.6** `virtual const ConnectionMetaData* cms::Connection::getMetaData () const throw ( CMSEException ) [pure virtual]`

Gets the metadata for this connection.

**Returns:**

the connection MetaData pointer ( caller does not own it ).

**Exceptions:**

*CMSEException* (p. 1031) if the provider fails to get the connection metadata for this connection.

**See also:**

**ConnectionMetaData** (p. 1237)

**Since:**

2.0

Implemented in **activemq::core::ActiveMQConnection** (p. 239).

**6.194.3.7** **virtual void cms::Connection::setExceptionListener** (**ExceptionListener \***  
*listener*) [pure virtual]

Sets the registered Exception Listener for this connection.

**Parameters:**

*listener* pointer to and ExceptionListener (p. 1581)

Implemented in **activemq::core::ActiveMQConnection** (p. 241).

The documentation for this class was generated from the following file:

- `src/main/cms/Connection.h`



## 6.195 activemq::commands::ConnectionControl Class Reference

#include <src/main/activemq/commands/ConnectionControl.h> Inheritance diagram for activemq::commands::ConnectionControl:

### Public Member Functions

- **ConnectionControl** ()
- virtual **~ConnectionControl** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConnectionControl \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isClose** () const
- virtual void **setClose** (bool close)
- virtual bool **isExit** () const
- virtual void **setExit** (bool exit)
- virtual bool **isFaultTolerant** () const
- virtual void **setFaultTolerant** (bool faultTolerant)
- virtual bool **isResume** () const
- virtual void **setResume** (bool resume)
- virtual bool **isSuspend** () const
- virtual void **setSuspend** (bool suspend)
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_CONNECTIONCONTROL** = 18

## Protected Member Functions

- **ConnectionControl** (const **ConnectionControl** &)
- **ConnectionControl** & **operator=** (const **ConnectionControl** &)

## Protected Attributes

- bool **close**
- bool **exit**
- bool **faultTolerant**
- bool **resume**
- bool **suspend**

## 6.195.1 Constructor & Destructor Documentation

**6.195.1.1** **activemq::commands::ConnectionControl::ConnectionControl** (const **ConnectionControl** &) [inline, protected]

**6.195.1.2** **activemq::commands::ConnectionControl::ConnectionControl** ()

**6.195.1.3** **virtual activemq::commands::ConnectionControl::~~ConnectionControl** () [virtual]

## 6.195.2 Member Function Documentation

**6.195.2.1** **virtual ConnectionControl\*** **activemq::commands::ConnectionControl::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.195.2.2** **virtual void** **activemq::commands::ConnectionControl::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.195.2.3 virtual bool activemq::commands::ConnectionControl::equals (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.195.2.4 virtual unsigned char activemq::commands::ConnectionControl::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.195.2.5 `virtual bool activemq::commands::ConnectionControl::isClose () const`  
[virtual]
- 6.195.2.6 `virtual bool activemq::commands::ConnectionControl::isExit () const`  
[virtual]
- 6.195.2.7 `virtual bool activemq::commands::ConnectionControl::isFaultTolerant ()`  
`const` [virtual]
- 6.195.2.8 `virtual bool activemq::commands::ConnectionControl::isResume () const`  
[virtual]
- 6.195.2.9 `virtual bool activemq::commands::ConnectionControl::isSuspend () const`  
[virtual]
- 6.195.2.10 `ConnectionControl& activemq::commands::ConnectionControl::operator= (const`  
`ConnectionControl &) [inline, protected]`
- 6.195.2.11 `virtual void activemq::commands::ConnectionControl::setClose (bool`  
`close) [virtual]`
- 6.195.2.12 `virtual void activemq::commands::ConnectionControl::setExit (bool`  
`exit) [virtual]`
- 6.195.2.13 `virtual void activemq::commands::ConnectionControl::setFaultTolerant`  
`(bool faultTolerant) [virtual]`
- 6.195.2.14 `virtual void activemq::commands::ConnectionControl::setResume (bool`  
`resume) [virtual]`
- 6.195.2.15 `virtual void activemq::commands::ConnectionControl::setSuspend (bool`  
`suspend) [virtual]`
- 6.195.2.16 `virtual std::string activemq::commands::ConnectionControl::toString ()`  
`const` [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p.655).

- 6.195.2.17 `virtual Pointer<Command> activemq::commands::ConnectionControl::visit`  
`(activemq::state::CommandVisitor * visitor) throw (`  
`exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.195.3 Field Documentation**

**6.195.3.1** `bool activemq::commands::ConnectionControl::close` [protected]

**6.195.3.2** `bool activemq::commands::ConnectionControl::exit` [protected]

**6.195.3.3** `bool activemq::commands::ConnectionControl::faultTolerant` [protected]

**6.195.3.4** `const unsigned char activemq::commands::ConnectionControl::ID_ - CONNECTIONCONTROL = 18` [static]

**6.195.3.5** `bool activemq::commands::ConnectionControl::resume` [protected]

**6.195.3.6** `bool activemq::commands::ConnectionControl::suspend` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConnectionControl.h`

## 6.196 activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1140).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConnectionControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller:

### Public Member Functions

- **ConnectionControlMarshaller** ()
- virtual **~ConnectionControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.196.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1140). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.196.2 Constructor & Destructor Documentation

**6.196.2.1** `activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::ConnectionControlMarshaller()` [inline]

**6.196.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::~~ConnectionControlMarshaller()` [inline, virtual]

## 6.196.3 Member Function Documentation

**6.196.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.196.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.196.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.196.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.196.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).



**6.196.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.196.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ConnectionControlMarshaller.h

## 6.197 activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1144).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConnectionControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller:

### Public Member Functions

- **ConnectionControlMarshaller** ()
- virtual **~ConnectionControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.197.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1144). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.197.2 Constructor & Destructor Documentation

**6.197.2.1** `activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::ConnectionControlMarshaller()` [inline]

**6.197.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::~~ConnectionControlMarshaller()` [inline, virtual]

## 6.197.3 Member Function Documentation

**6.197.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.197.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.197.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.197.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.197.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.197.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.197.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConnectionControlMarshaller.h

## 6.198 activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1148).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConnectionControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller:

### Public Member Functions

- **ConnectionControlMarshaller** ()
- virtual **~ConnectionControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.198.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1148). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.198.2 Constructor & Destructor Documentation

**6.198.2.1** `activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::ConnectionControlMarshaller()` [inline]

**6.198.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::~~ConnectionControlMarshaller()` [inline, virtual]

## 6.198.3 Member Function Documentation

**6.198.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.198.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.198.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.198.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.198.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).



**6.198.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.198.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConnectionControlMarshaller.h

## 6.199 activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1152).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConnectionControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller:

### Public Member Functions

- **ConnectionControlMarshaller** ()
- virtual **~ConnectionControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.199.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1152). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.199.2 Constructor & Destructor Documentation

**6.199.2.1** `activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::ConnectionControlMarshaller()` [inline]

**6.199.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::~~ConnectionControlMarshaller()` [inline, virtual]

## 6.199.3 Member Function Documentation

**6.199.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.199.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.199.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.199.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.199.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.199.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.199.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConnectionControlMarshaller.h

## 6.200 activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1156).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConnectionControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller:

### Public Member Functions

- **ConnectionControlMarshaller** ()
- virtual **~ConnectionControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.200.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1156). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.200.2 Constructor & Destructor Documentation

**6.200.2.1** `activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::ConnectionControlMarshaller()` [inline]

**6.200.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::~~ConnectionControlMarshaller()` [inline, virtual]

## 6.200.3 Member Function Documentation

**6.200.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.200.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.200.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.200.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.200.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).



**6.200.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.200.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConnectionControlMarshaller.h

## 6.201 activemq::commands::ConnectionError Class Reference

#include <src/main/activemq/commands/ConnectionError.h> Inheritance diagram for activemq::commands::ConnectionError:

### Public Member Functions

- **ConnectionError** ()
- virtual **~ConnectionError** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConnectionError** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **BrokerError** > & **getException** () const
- virtual **Pointer**< **BrokerError** > & **getException** ()
- virtual void **setException** (const **Pointer**< **BrokerError** > &exception)
- virtual const **Pointer**< **ConnectionId** > & **getConnectionId** () const
- virtual **Pointer**< **ConnectionId** > & **getConnectionId** ()
- virtual void **setConnectionId** (const **Pointer**< **ConnectionId** > &connectionId)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_CONNECTIONERROR** = 16

### Protected Member Functions

- **ConnectionError** (const **ConnectionError** &)
- **ConnectionError** & **operator=** (const **ConnectionError** &)

## Protected Attributes

- `Pointer< BrokerError > exception`
- `Pointer< ConnectionId > connectionId`

## 6.201.1 Constructor & Destructor Documentation

**6.201.1.1** `activemq::commands::ConnectionError::ConnectionError (const ConnectionError &) [inline, protected]`

**6.201.1.2** `activemq::commands::ConnectionError::ConnectionError ()`

**6.201.1.3** `virtual activemq::commands::ConnectionError::~~ConnectionError () [virtual]`

## 6.201.2 Member Function Documentation

**6.201.2.1** `virtual ConnectionError* activemq::commands::ConnectionError::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.201.2.2** `virtual void activemq::commands::ConnectionError::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.201.2.3** `virtual bool activemq::commands::ConnectionError::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

- 6.201.2.4 `virtual Pointer<ConnectionId>& activemq::commands::ConnectionError::getConnectionId ()`  
[virtual]
- 6.201.2.5 `virtual const Pointer<ConnectionId>& activemq::commands::ConnectionError::getConnectionId ()`  
const [virtual]
- 6.201.2.6 `virtual unsigned char activemq::commands::ConnectionError::getDataStructureType () const`  
[virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.201.2.7 `virtual Pointer<BrokerError>& activemq::commands::ConnectionError::getException ()`  
[virtual]
- 6.201.2.8 `virtual const Pointer<BrokerError>& activemq::commands::ConnectionError::getException ()`  
const [virtual]
- 6.201.2.9 `ConnectionError& activemq::commands::ConnectionError::operator=`  
(const ConnectionError &) [inline, protected]
- 6.201.2.10 `virtual void activemq::commands::ConnectionError::setConnectionId`  
(const Pointer< ConnectionId > & *connectionId*) [virtual]
- 6.201.2.11 `virtual void activemq::commands::ConnectionError::setException (const`  
Pointer< BrokerError > & *exception*) [virtual]
- 6.201.2.12 `virtual std::string activemq::commands::ConnectionError::toString ()`  
const [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.201.2.13** `virtual Pointer<Command> activemq::commands::ConnectionError::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.201.3 Field Documentation

**6.201.3.1** `Pointer<ConnectionId> activemq::commands::ConnectionError::connectionId` [protected]

**6.201.3.2** `Pointer<BrokerError> activemq::commands::ConnectionError::exception` [protected]

**6.201.3.3** `const unsigned char activemq::commands::ConnectionError::ID _ - CONNECTIONERROR = 16` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConnectionError.h`

## 6.202 activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1164).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConnectionErrorMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller:

### Public Member Functions

- **ConnectionErrorMarshaller** ()
- virtual **~ConnectionErrorMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.202.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1164). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.202.2 Constructor & Destructor Documentation

**6.202.2.1** `activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::ConnectionErrorMarshaller()` [inline]

**6.202.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::~~ConnectionErrorMarshaller()` [inline, virtual]

## 6.202.3 Member Function Documentation

**6.202.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.202.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.202.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.202.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.202.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).



**6.202.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.202.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ConnectionErrorMarshaller.h

## 6.203 activemq::wireformat::openwire::marshal::v1::ConnectionErrorMa Class Reference

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1168).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConnectionErrorMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller:

### Public Member Functions

- **ConnectionErrorMarshaller** ()
- virtual **~ConnectionErrorMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.203.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1168). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.203.2 Constructor & Destructor Documentation

**6.203.2.1** `activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::ConnectionErrorMarshaller()` [inline]

**6.203.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::~~ConnectionErrorMarshaller()` [inline, virtual]

## 6.203.3 Member Function Documentation

**6.203.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.203.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.203.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.203.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.203.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.203.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.203.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConnectionErrorMarshaller.h

## 6.204 activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1172).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConnectionErrorMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller:

### Public Member Functions

- **ConnectionErrorMarshaller** ()
- virtual **~ConnectionErrorMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.204.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1172). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.204.2 Constructor & Destructor Documentation

**6.204.2.1** `activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::ConnectionErrorMarshaller()` [inline]

**6.204.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::~~ConnectionErrorMarshaller()` [inline, virtual]

## 6.204.3 Member Function Documentation

**6.204.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.204.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.204.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.204.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.204.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).



**6.204.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.204.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConnectionErrorMarshaller.h

## 6.205 activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1176).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConnectionErrorMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller:

### Public Member Functions

- **ConnectionErrorMarshaller** ()
- virtual **~ConnectionErrorMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.205.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1176). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.205.2 Constructor & Destructor Documentation

**6.205.2.1** `activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::ConnectionErrorMarshaller()` `[inline]`

**6.205.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::~~ConnectionErrorMarshaller()` `[inline, virtual]`

## 6.205.3 Member Function Documentation

**6.205.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.205.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.205.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.205.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.205.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.205.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.205.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConnectionErrorMarshaller.h

## 6.206 activemq::wireformat::openwire::marshal::v2::ConnectionErrorMa Class Reference

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1180).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConnectionErrorMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller:

### Public Member Functions

- **ConnectionErrorMarshaller** ()
- virtual **~ConnectionErrorMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.206.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p.1180). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.206.2 Constructor & Destructor Documentation

**6.206.2.1** `activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::ConnectionErrorMarshaller()` [inline]

**6.206.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::~~ConnectionErrorMarshaller()` [inline, virtual]

## 6.206.3 Member Function Documentation

**6.206.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.206.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.206.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.206.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.206.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).



**6.206.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.206.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConnectionErrorMarshaller.h

## 6.207 cms::ConnectionFactory Class Reference

Defines the interface for a factory that creates connection objects, the **Connection** (p.1131) objects returned implement the CMS **Connection** (p.1131) interface and hide the CMS Provider specific implementation details behind that interface.

#include <src/main/cms/ConnectionFactory.h> Inheritance diagram for cms::ConnectionFactory:

### Public Member Functions

- virtual **~ConnectionFactory** ()
- virtual **Connection \* createConnection** ()=0 throw ( CMSEException )  
*Creates a connection with the default user identity.*
- virtual **cms::Connection \* createConnection** (const std::string &username, const std::string &password)=0 throw ( cms::CMSEException )  
*Creates a connection with the default specified identity.*
- virtual **cms::Connection \* createConnection** (const std::string &username, const std::string &password, const std::string &clientId)=0 throw ( cms::CMSEException )  
*Creates a connection with the specified user identity.*

### Static Public Member Functions

- static **ConnectionFactory \* createCMSConnectionFactory** (const std::string &brokerURI) throw ( cms::CMSEException )  
*Static method that is used to create a provider specific connection factory.*

#### 6.207.1 Detailed Description

Defines the interface for a factory that creates connection objects, the **Connection** (p.1131) objects returned implement the CMS **Connection** (p.1131) interface and hide the CMS Provider specific implementation details behind that interface. A Client creates a new **ConnectionFactory** (p.1184) either directly by instantiating the provider specific implementation of the factory or by using the static method **createCMSConnectionFactory** which all providers are required to implement.

Since:

1.0

## 6.207.2 Constructor & Destructor Documentation

**6.207.2.1** `virtual cms::ConnectionFactory::~~ConnectionFactory () [inline, virtual]`

## 6.207.3 Member Function Documentation

**6.207.3.1** `static ConnectionFactory* cms::ConnectionFactory::createCMSConnectionFactory (const std::string & brokerURI) throw ( cms::CMSException ) [static]`

Static method that is used to create a provider specific connection factory. The provider implements this method in their library and returns an instance of a **ConnectionFactory** (p.1184) derived object. Clients can use this method to remain abstracted from the specific CMS implementation being used.

### Parameters:

***brokerURI*** The remote address to use to connect to the Provider.

### Returns:

A pointer to a provider specific implementation of the **ConnectionFactory** (p.1184) interface, the caller is responsible for deleting this resource.

### Exceptions:

***CMSException*** (p. 1031) if an internal error occurs while creating the **ConnectionFactory** (p.1184).

**6.207.3.2** `virtual cms::Connection* cms::ConnectionFactory::createConnection (const std::string & username, const std::string & password, const std::string & clientId) throw ( cms::CMSException ) [pure virtual]`

Creates a connection with the specified user identity. The connection is created in stopped mode. No messages will be delivered until the **Connection.start** (p.3014) method is explicitly called. The user name and password values passed here do not change the defaults, subsequent calls to the parameterless createConnection will continue to use the default values that were set in the Constructor.

### Parameters:

***username*** The user name used to authenticate with the Provider.

***password*** The password used to authenticate with the Provider.

***clientId*** The Client Id assigned to connection. If the id is the empty string ("") then a random client Id is created for this connection.

### Returns:

A pointer to a connection object, caller owns the pointer and is responsible for closing the connection and deleting the instance.

### Exceptions:

***CMSException*** (p. 1031) if an internal error occurs while creating the **Connection** (p.1131).

Implemented in **activemq::core::ActiveMQConnectionFactory** (p. 246).

**6.207.3.3** `virtual cms::Connection* cms::ConnectionFactory::createConnection (const std::string & username, const std::string & password) throw ( cms::CMSEException )` [pure virtual]

Creates a connection with the default specified identity. The connection is created in stopped mode. No messages will be delivered until the **Connection.start** (p. 3014) method is explicitly called. The username and password values passed here do not change the defaults, subsequent calls to the parameterless createConnection will continue to use the default values that were set in the Constructor.

**Parameters:**

*username* The user name used to authenticate with the Provider.

*password* The password used to authenticate with the Provider.

**Returns:**

A pointer to a connection object, caller owns the pointer and is responsible for closing the connection and deleting the instance.

**Exceptions:**

*CMSEException* (p. 1031) if an internal error occurs while creating the **Connection** (p. 1131).

Implemented in **activemq::core::ActiveMQConnectionFactory** (p. 246).

**6.207.3.4** `virtual Connection* cms::ConnectionFactory::createConnection () throw ( CMSEException )` [pure virtual]

Creates a connection with the default user identity. The connection is created in stopped mode. No messages will be delivered until the **Connection.start** (p. 3014) method is explicitly called.

**Returns:**

A pointer to a connection object, caller owns the pointer and is responsible for closing the connection and deleting the instance.

**Exceptions:**

*CMSEException* (p. 1031) if an internal error occurs while creating the **Connection** (p. 1131).

Implemented in **activemq::core::ActiveMQConnectionFactory** (p. 246).

The documentation for this class was generated from the following file:

- src/main/cms/ConnectionFactory.h

## 6.208 activemq::commands::ConnectionId Class Reference

#include <src/main/activemq/commands/ConnectionId.h> Inheritance diagram for activemq::commands::ConnectionId:

### Public Types

- typedef decaf::lang::PointerComparator< ConnectionId > COMPARATOR

### Public Member Functions

- **ConnectionId** ()
- **ConnectionId** (const **ConnectionId** &other)
- **ConnectionId** (const **SessionId** \*sessionId)
- **ConnectionId** (const **ProducerId** \*producerId)
- **ConnectionId** (const **ConsumerId** \*consumerId)
- virtual ~**ConnectionId** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConnectionId** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getValue** () const
- virtual std::string & **getValue** ()
- virtual void **setValue** (const std::string &value)
- virtual int **compareTo** (const **ConnectionId** &value) const
- virtual bool **equals** (const **ConnectionId** &value) const
- virtual bool **operator==** (const **ConnectionId** &value) const
- virtual bool **operator<** (const **ConnectionId** &value) const
- **ConnectionId** & **operator=** (const **ConnectionId** &other)

### Static Public Attributes

- static const unsigned char **ID\_CONNECTIONID** = 120

## Protected Attributes

- `std::string` `value`

### 6.208.1 Member Typedef Documentation

**6.208.1.1** `typedef decaf::lang::PointerComparator<ConnectionId>`  
`activemq::commands::ConnectionId::COMPARATOR`

### 6.208.2 Constructor & Destructor Documentation

**6.208.2.1** `activemq::commands::ConnectionId::ConnectionId ()`

**6.208.2.2** `activemq::commands::ConnectionId::ConnectionId (const ConnectionId`  
`& other)`

**6.208.2.3** `activemq::commands::ConnectionId::ConnectionId (const SessionId *`  
`sessionId)`

**6.208.2.4** `activemq::commands::ConnectionId::ConnectionId (const ProducerId *`  
`producerId)`

**6.208.2.5** `activemq::commands::ConnectionId::ConnectionId (const ConsumerId *`  
`consumerId)`

**6.208.2.6** `virtual activemq::commands::ConnectionId::~~ConnectionId ()` [virtual]

### 6.208.3 Member Function Documentation

**6.208.3.1** `virtual ConnectionId* ac-`  
`tivemq::commands::ConnectionId::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.208.3.2** `virtual int activemq::commands::ConnectionId::compareTo (const`  
`ConnectionId & value) const` [virtual]

**6.208.3.3** `virtual void activemq::commands::ConnectionId::copyDataStructure`  
`(const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.208.3.4** `virtual bool activemq::commands::ConnectionId::equals (const ConnectionId & value) const` [virtual]

**6.208.3.5** `virtual bool activemq::commands::ConnectionId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.208.3.6** `virtual unsigned char activemq::commands::ConnectionId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

**6.208.3.7** `virtual std::string& activemq::commands::ConnectionId::getValue ()` [virtual]

**6.208.3.8** `virtual const std::string& activemq::commands::ConnectionId::getValue () const` [virtual]

**6.208.3.9** `virtual bool activemq::commands::ConnectionId::operator< (const ConnectionId & value) const` [virtual]

**6.208.3.10** `ConnectionId& activemq::commands::ConnectionId::operator= (const ConnectionId & other)`

**6.208.3.11** `virtual bool activemq::commands::ConnectionId::operator== (const ConnectionId & value) const` [virtual]

**6.208.3.12** `virtual void activemq::commands::ConnectionId::setValue (const std::string & value)` [virtual]

**6.208.3.13** `virtual std::string activemq::commands::ConnectionId::toString () const` [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p. 718).

## 6.208.4 Field Documentation

### 6.208.4.1 `const unsigned char activemq::commands::ConnectionId::ID_ - CONNECTIONID = 120` [static]

Referenced by `activemq::state::CommandVisitorAdapter::processRemoveInfo()`.

### 6.208.4.2 `std::string activemq::commands::ConnectionId::value` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConnectionId.h`



## 6.209 activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1191).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConnectionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller:

### Public Member Functions

- **ConnectionIdMarshaller** ()
- virtual **~ConnectionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.209.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1191). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.209.2 Constructor & Destructor Documentation

**6.209.2.1** `activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::ConnectionIdMarshaller()` [inline]

**6.209.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::~~ConnectionIdMarshaller()` [inline, virtual]

## 6.209.3 Member Function Documentation

**6.209.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.209.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.209.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.209.3.4** virtual void `activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.209.3.5** virtual int `activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.209.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.209.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ConnectionIdMarshaller.h

## 6.210 activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1195).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConnectionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller:

### Public Member Functions

- **ConnectionIdMarshaller** ()
- virtual **~ConnectionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.210.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1195). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.210.2 Constructor & Destructor Documentation

**6.210.2.1** `activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::ConnectionIdMarshaller()` [inline]

**6.210.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::~~ConnectionIdMarshaller()` [inline, virtual]

## 6.210.3 Member Function Documentation

**6.210.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.210.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.210.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.210.3.4** virtual void `activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.210.3.5** virtual int `activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.210.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.210.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConnectionIdMarshaller.h



## 6.211 activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1199).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConnectionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller:

### Public Member Functions

- **ConnectionIdMarshaller** ()
- virtual **~ConnectionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

#### 6.211.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1199). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.211.2 Constructor & Destructor Documentation

**6.211.2.1** `activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::ConnectionIdMarshaller()` [inline]

**6.211.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::~~ConnectionIdMarshaller()` [inline, virtual]

## 6.211.3 Member Function Documentation

**6.211.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.211.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.211.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.211.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.211.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.211.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.211.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConnectionIdMarshaller.h

## 6.212 activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1203).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConnectionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller:

### Public Member Functions

- **ConnectionIdMarshaller** ()
- virtual **~ConnectionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.212.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1203). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.212.2 Constructor & Destructor Documentation

**6.212.2.1** `activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::ConnectionIdMarshaller()` [inline]

**6.212.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::~~ConnectionIdMarshaller()` [inline, virtual]

## 6.212.3 Member Function Documentation

**6.212.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.212.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.212.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.212.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.212.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.212.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.212.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConnectionIdMarshaller.h



## 6.213 activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1207).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConnectionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller:

### Public Member Functions

- **ConnectionIdMarshaller** ()
- virtual ~**ConnectionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.213.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p.1207). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.213.2 Constructor & Destructor Documentation

**6.213.2.1** `activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::ConnectionIdMarshaller()` [inline]

**6.213.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::~~ConnectionIdMarshaller()` [inline, virtual]

## 6.213.3 Member Function Documentation

**6.213.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.213.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.213.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.213.3.4** virtual void `activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.213.3.5** virtual int `activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.213.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.213.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConnectionIdMarshaller.h

## 6.214 activemq::commands::ConnectionInfo Class Reference

#include <src/main/activemq/commands/ConnectionInfo.h> Inheritance diagram for activemq::commands::ConnectionInfo:

### Public Member Functions

- **ConnectionInfo** ()
- virtual **~ConnectionInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConnectionInfo** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConnectionId** > & **getConnectionId** () const
- virtual **Pointer**< **ConnectionId** > & **getConnectionId** ()
- virtual void **setConnectionId** (const **Pointer**< **ConnectionId** > &connectionId)
- virtual const std::string & **getClientId** () const
- virtual std::string & **getClientId** ()
- virtual void **setClientId** (const std::string &clientId)
- virtual const std::string & **getPassword** () const
- virtual std::string & **getPassword** ()
- virtual void **setPassword** (const std::string &password)
- virtual const std::string & **getUserName** () const
- virtual std::string & **getUserName** ()
- virtual void **setUserName** (const std::string &userName)
- virtual const std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** () const
- virtual std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** ()
- virtual void **setBrokerPath** (const std::vector< **decaf::lang::Pointer**< **BrokerId** > > &brokerPath)
- virtual bool **isBrokerMasterConnector** () const
- virtual void **setBrokerMasterConnector** (bool brokerMasterConnector)
- virtual bool **isManageable** () const
- virtual void **setManageable** (bool manageable)
- virtual bool **isClientMaster** () const

- virtual void **setClientMaster** (bool **clientMaster**)
- virtual bool **isConnectionInfo** () const
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )

*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID \_ CONNECTIONINFO** = 3

## Protected Member Functions

- **ConnectionInfo** (const **ConnectionInfo** &)
- **ConnectionInfo** & **operator=** (const **ConnectionInfo** &)

## Protected Attributes

- **Pointer< ConnectionId > connectionId**
- std::string **clientId**
- std::string **password**
- std::string **userName**
- std::vector< decaf::lang::Pointer< BrokerId > > **brokerPath**
- bool **brokerMasterConnector**
- bool **manageable**
- bool **clientMaster**

## 6.214.1 Constructor & Destructor Documentation

- 6.214.1.1** **activemq::commands::ConnectionInfo::ConnectionInfo** (const **ConnectionInfo** &) [inline, protected]
- 6.214.1.2** **activemq::commands::ConnectionInfo::ConnectionInfo** ()
- 6.214.1.3** **virtual activemq::commands::ConnectionInfo::~~ConnectionInfo** () [virtual]

## 6.214.2 Member Function Documentation

- 6.214.2.1** **virtual ConnectionInfo\* activemq::commands::ConnectionInfo::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

### 6.214.2.2 virtual void activemq::commands::ConnectionInfo::copyDataStructure (const DataStructure \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.214.2.3 virtual bool activemq::commands::ConnectionInfo::equals (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.214.2.4 virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ConnectionInfo::getBrokerPath () [virtual]

### 6.214.2.5 virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ConnectionInfo::getBrokerPath () const [virtual]

### 6.214.2.6 virtual std::string& activemq::commands::ConnectionInfo::getClientId () [virtual]

### 6.214.2.7 virtual const std::string& activemq::commands::ConnectionInfo::getClientId () const [virtual]

### 6.214.2.8 virtual Pointer<ConnectionId>& activemq::commands::ConnectionInfo::getConnectionId () [virtual]

### 6.214.2.9 virtual const Pointer<ConnectionId>& activemq::commands::ConnectionInfo::getConnectionId () const [virtual]

### 6.214.2.10 virtual unsigned char activemq::commands::ConnectionInfo::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.214.2.11 `virtual std::string& activemq::commands::ConnectionInfo::getPassword () [virtual]`
  
- 6.214.2.12 `virtual const std::string& activemq::commands::ConnectionInfo::getPassword () const [virtual]`
  
- 6.214.2.13 `virtual std::string& activemq::commands::ConnectionInfo::getUserName () [virtual]`
  
- 6.214.2.14 `virtual const std::string& activemq::commands::ConnectionInfo::getUserName () const [virtual]`
  
- 6.214.2.15 `virtual bool activemq::commands::ConnectionInfo::isBrokerMasterConnector () const [virtual]`
  
- 6.214.2.16 `virtual bool activemq::commands::ConnectionInfo::isClientMaster () const [virtual]`
  
- 6.214.2.17 `virtual bool activemq::commands::ConnectionInfo::isConnectionInfo () const [inline, virtual]`

**Returns:**

an answer of true to the `isConnectionInfo()` (p. 1214) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).



- 6.214.2.18 `virtual bool activemq::commands::ConnectionInfo::isManageable () const [virtual]`
- 6.214.2.19 `ConnectionInfo& activemq::commands::ConnectionInfo::operator= (const ConnectionInfo &) [inline, protected]`
- 6.214.2.20 `virtual void activemq::commands::ConnectionInfo::setBrokerMasterConnector (bool brokerMasterConnector) [virtual]`
- 6.214.2.21 `virtual void activemq::commands::ConnectionInfo::setBrokerPath (const std::vector< decaf::lang::Pointer< BrokerId > > & brokerPath) [virtual]`
- 6.214.2.22 `virtual void activemq::commands::ConnectionInfo::setClientId (const std::string & clientId) [virtual]`
- 6.214.2.23 `virtual void activemq::commands::ConnectionInfo::setClientMaster (bool clientMaster) [virtual]`
- 6.214.2.24 `virtual void activemq::commands::ConnectionInfo::setConnectionId (const Pointer< ConnectionId > & connectionId) [virtual]`
- 6.214.2.25 `virtual void activemq::commands::ConnectionInfo::setManageable (bool manageable) [virtual]`
- 6.214.2.26 `virtual void activemq::commands::ConnectionInfo::setPassword (const std::string & password) [virtual]`
- 6.214.2.27 `virtual void activemq::commands::ConnectionInfo::setUserName (const std::string & userName) [virtual]`
- 6.214.2.28 `virtual std::string activemq::commands::ConnectionInfo::toString () const [virtual]`

Returns a string containing the information for this **DataSet** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

- 6.214.2.29 `virtual Pointer<Command> activemq::commands::ConnectionInfo::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

#### Returns:

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p.1067).

### 6.214.3 Field Documentation

- 6.214.3.1 `bool activemq::commands::ConnectionInfo::brokerMasterConnector` [protected]
- 6.214.3.2 `std::vector< decaf::lang::Pointer<BrokerId> >`  
`activemq::commands::ConnectionInfo::brokerPath` [protected]
- 6.214.3.3 `std::string activemq::commands::ConnectionInfo::clientId` [protected]
- 6.214.3.4 `bool activemq::commands::ConnectionInfo::clientMaster` [protected]
- 6.214.3.5 `Pointer<ConnectionId>` `activemq::commands::ConnectionInfo::connectionId` [protected]
- 6.214.3.6 `const unsigned char activemq::commands::ConnectionInfo::ID_-`  
`CONNECTIONINFO = 3` [static]
- 6.214.3.7 `bool activemq::commands::ConnectionInfo::manageable` [protected]
- 6.214.3.8 `std::string activemq::commands::ConnectionInfo::password` [protected]
- 6.214.3.9 `std::string activemq::commands::ConnectionInfo::userName` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConnectionInfo.h`

## 6.215 activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1217).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConnectionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller:

### Public Member Functions

- **ConnectionInfoMarshaller** ()
- virtual **~ConnectionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.215.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1217). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.215.2 Constructor & Destructor Documentation

**6.215.2.1** `activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::ConnectionInfoMarshaller()` [inline]

**6.215.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::~~ConnectionInfoMarshaller()` [inline, virtual]

## 6.215.3 Member Function Documentation

**6.215.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.215.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.215.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.215.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.215.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.215.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.215.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ConnectionInfoMarshaller.h

## 6.216 activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1221).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConnectionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller:

### Public Member Functions

- **ConnectionInfoMarshaller** ()
- virtual **~ConnectionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.216.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1221). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.216.2 Constructor & Destructor Documentation

**6.216.2.1** `activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::ConnectionInfoM  
( ) [inline]`

**6.216.2.2** `virtual  
activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::~~ConnectionInfo  
( ) [inline, virtual]`

## 6.216.3 Member Function Documentation

**6.216.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.216.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::getDataStructureT  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.216.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.216.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.216.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.216.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.216.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConnectionInfoMarshaller.h

## 6.217 activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1225).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConnectionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller:

### Public Member Functions

- **ConnectionInfoMarshaller** ()
- virtual **~ConnectionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.217.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1225). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.217.2 Constructor & Destructor Documentation

**6.217.2.1** `activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::ConnectionInfoM  
() [inline]`

**6.217.2.2** `virtual  
activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::~~ConnectionInfo  
() [inline, virtual]`

## 6.217.3 Member Function Documentation

**6.217.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::createObject  
() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.217.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::getDataStructureT  
() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.217.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.217.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.217.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.217.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.217.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConnectionInfoMarshaller.h

## 6.218 activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1229).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConnectionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller:

### Public Member Functions

- **ConnectionInfoMarshaller** ()
- virtual **~ConnectionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.218.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1229). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.218.2 Constructor & Destructor Documentation

**6.218.2.1** `activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::ConnectionInfoM  
( ) [inline]`

**6.218.2.2** `virtual  
activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::~~ConnectionInfo  
( ) [inline, virtual]`

## 6.218.3 Member Function Documentation

**6.218.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.218.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::getDataStructureT  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.218.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.218.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.218.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.218.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.218.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConnectionInfoMarshaller.h

## 6.219 activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1233).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConnectionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller:

### Public Member Functions

- **ConnectionInfoMarshaller** ()
- virtual **~ConnectionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.219.1 Detailed Description

Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1233). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.219.2 Constructor & Destructor Documentation

**6.219.2.1** `activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::ConnectionInfoM  
( ) [inline]`

**6.219.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::~~ConnectionInfo  
( ) [inline, virtual]`

## 6.219.3 Member Function Documentation

**6.219.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.219.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::getDataStructureT  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.219.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.219.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.219.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.219.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.219.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConnectionInfoMarshaller.h

## 6.220 cms::ConnectionMetaData Class Reference

A **ConnectionMetaData** (p.1237) object provides information describing the **Connection** (p.1131) object.

#include <src/main/cms/ConnectionMetaData.h> Inheritance diagram for cms::ConnectionMetaData:

### Public Member Functions

- virtual **~ConnectionMetaData** ()
- virtual std::string **getCMSVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS API version.*
- virtual int **getCMSMajorVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS major version number.*
- virtual int **getCMSMinorVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS minor version number.*
- virtual std::string **getCMSProviderName** () const =0 throw ( cms::CMSEException )  
*Gets the CMS provider name.*
- virtual std::string **getProviderVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS provider version.*
- virtual int **getProviderMajorVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS provider major version number.*
- virtual int **getProviderMinorVersion** () const =0 throw ( cms::CMSEException )  
*Gets the CMS provider minor version number.*
- virtual std::vector< std::string > **getCMSXPropertyNames** () const =0 throw ( cms::CMSEException )  
*Gets an Vector of the CMSX property names.*

### 6.220.1 Detailed Description

A **ConnectionMetaData** (p.1237) object provides information describing the **Connection** (p.1131) object.

Since:

1.3

## 6.220.2 Constructor & Destructor Documentation

**6.220.2.1** `virtual cms::ConnectionMetaData::~~ConnectionMetaData () [inline, virtual]`

## 6.220.3 Member Function Documentation

**6.220.3.1** `virtual int cms::ConnectionMetaData::getCMSMajorVersion () const throw ( cms::CMSException ) [pure virtual]`

Gets the CMS major version number.

### Returns:

the CMS API major version number

### Exceptions:

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 250).

**6.220.3.2** `virtual int cms::ConnectionMetaData::getCMSMinorVersion () const throw ( cms::CMSException ) [pure virtual]`

Gets the CMS minor version number.

### Returns:

the CMS API minor version number

### Exceptions:

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 250).

**6.220.3.3** `virtual std::string cms::ConnectionMetaData::getCMSProviderName () const throw ( cms::CMSException ) [pure virtual]`

Gets the CMS provider name.

### Returns:

the CMS provider name

### Exceptions:

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 250).



**6.220.3.4** `virtual std::string cms::ConnectionMetaData::getCMSVersion () const  
throw ( cms::CMSException ) [pure virtual]`

Gets the CMS API version.

**Returns:**

the CMS API Version in String form.

**Exceptions:**

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 251).

**6.220.3.5** `virtual std::vector<std::string>  
cms::ConnectionMetaData::getCMSXPropertyNames ()  
const throw ( cms::CMSException ) [pure virtual]`

Gets an Vector of the CMSX property names.

**Returns:**

an Vector of CMSX property names

**Exceptions:**

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 251).

**6.220.3.6** `virtual int cms::ConnectionMetaData::getProviderMajorVersion () const  
throw ( cms::CMSException ) [pure virtual]`

Gets the CMS provider major version number.

**Returns:**

the CMS provider major version number

**Exceptions:**

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in `activemq::core::ActiveMQConnectionMetaData` (p. 251).

**6.220.3.7** `virtual int cms::ConnectionMetaData::getProviderMinorVersion () const  
throw ( cms::CMSException ) [pure virtual]`

Gets the CMS provider minor version number.

**Returns:**

the CMS provider minor version number

**Exceptions:**

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in **activemq::core::ActiveMQConnectionMetaData** (p. 252).

**6.220.3.8** `virtual std::string cms::ConnectionMetaData::getProviderVersion ()  
const throw ( cms::CMSException ) [pure virtual]`

Gets the CMS provider version.

**Returns:**

the CMS provider version

**Exceptions:**

*CMSException* (p. 1031) If the CMS Provider fails to retrieve the metadata due to some internal error.

Implemented in **activemq::core::ActiveMQConnectionMetaData** (p. 252).

The documentation for this class was generated from the following file:

- `src/main/cms/ConnectionMetaData.h`

## 6.221 activemq::state::ConnectionState Class Reference

```
#include <src/main/activemq/state/ConnectionState.h>
```

### Public Member Functions

- **ConnectionState** (const **Pointer**< **ConnectionInfo** > &info)
- virtual **~ConnectionState** ()
- **std::string toString** () const
- const **Pointer**< **commands::ConnectionInfo** > & **getInfo** () const
- void **checkShutdown** () const
- void **shutdown** ()
- void **reset** (const **Pointer**< **ConnectionInfo** > &info)
- void **addTempDestination** (const **Pointer**< **DestinationInfo** > &info)
- void **removeTempDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- void **addTransactionState** (const **Pointer**< **TransactionId** > &id)
- const **Pointer**< **TransactionState** > & **getTransactionState** (const **Pointer**< **TransactionId** > &id) const
- **std::vector**< **Pointer**< **TransactionState** > > **getTransactionStates** () const
- **Pointer**< **TransactionState** > **removeTransactionState** (const **Pointer**< **TransactionId** > &id)
- void **addSession** (const **Pointer**< **SessionInfo** > &info)
- **Pointer**< **SessionState** > **removeSession** (const **Pointer**< **SessionId** > &id)
- const **Pointer**< **SessionState** > & **getSessionState** (const **Pointer**< **SessionId** > &id) const
- const **StlList**< **Pointer**< **DestinationInfo** > > & **getTempDesinations** () const
- **std::vector**< **Pointer**< **SessionState** > > **getSessionStates** () const

## 6.221.1 Constructor & Destructor Documentation

- 6.221.1.1 `activemq::state::ConnectionState::ConnectionState (const Pointer< ConnectionInfo > & info)`
- 6.221.1.2 `virtual activemq::state::ConnectionState::~~ConnectionState ()` [virtual]

## 6.221.2 Member Function Documentation

- 6.221.2.1 `void activemq::state::ConnectionState::addSession (const Pointer< SessionInfo > & info)` [inline]
- 6.221.2.2 `void activemq::state::ConnectionState::addTempDestination (const Pointer< DestinationInfo > & info)` [inline]
- 6.221.2.3 `void activemq::state::ConnectionState::addTransactionState (const Pointer< TransactionId > & id)` [inline]
- 6.221.2.4 `void activemq::state::ConnectionState::checkShutdown ()` const
- 6.221.2.5 `const Pointer< commands::ConnectionInfo > & activemq::state::ConnectionState::getInfo ()` const [inline]
- 6.221.2.6 `const Pointer< SessionState > & activemq::state::ConnectionState::getSessionState (const Pointer< SessionId > & id)` const [inline]
- 6.221.2.7 `std::vector< Pointer< SessionState > > activemq::state::ConnectionState::getSessionStates ()` const [inline]
- 6.221.2.8 `const StlList< Pointer< DestinationInfo > > & activemq::state::ConnectionState::getTempDesinations ()` const [inline]
- 6.221.2.9 `const Pointer< TransactionState > & activemq::state::ConnectionState::getTransactionState (const Pointer< TransactionId > & id)` const [inline]
- 6.221.2.10 `std::vector< Pointer< TransactionState > > activemq::state::ConnectionState::getTransactionStates ()` const [inline]
- 6.221.2.11 `Pointer< SessionState > activemq::state::ConnectionState::removeSession (const Pointer< SessionId > & id)` [inline]
- 6.221.2.12 `void activemq::state::ConnectionState::removeTempDestination (const Pointer< ActiveMQDestination > & destination)` [inline]

References `decaf::lang::Pointer< T, REFCOUNTER >::get()`.

- 6.221.2.13 `Pointer<TransactionState> activemq::state::ConnectionState::removeTransactionState (const Pointer< TransactionId > & id) [inline]`
- 6.221.2.14 `void activemq::state::ConnectionState::reset (const Pointer< ConnectionInfo > & info)`
- 6.221.2.15 `void activemq::state::ConnectionState::shutdown ()`
- 6.221.2.16 `std::string activemq::state::ConnectionState::toString () const`

The documentation for this class was generated from the following file:

- `src/main/activemq/state/ConnectionState.h`

## 6.222 activemq::state::ConnectionStateTracker Class Reference

#include <src/main/activemq/state/ConnectionStateTracker.h> Inheritance diagram for activemq::state::ConnectionStateTracker:

### Public Member Functions

- **ConnectionStateTracker** ()
- virtual **~ConnectionStateTracker** ()
- **Pointer< Tracked > track** (const **Pointer< Command >** &command) throw ( decaf::io::IOException )
- void **trackBack** (const **Pointer< Command >** &command)
- void **restore** (const **Pointer< transport::Transport >** &transport) throw ( decaf::io::IOException )
- virtual **Pointer< Command > processDestinationInfo** (**DestinationInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRemoveDestination** (**DestinationInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processProducerInfo** (**ProducerInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRemoveProducer** (**ProducerId** \*id) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processConsumerInfo** (**ConsumerInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRemoveConsumer** (**ConsumerId** \*id) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processSessionInfo** (**SessionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRemoveSession** (**SessionId** \*id) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processConnectionInfo** (**ConnectionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRemoveConnection** (**ConnectionId** \*id) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processMessage** (**Message** \*message) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processMessageAck** (**MessageAck** \*ack) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processBeginTransaction** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processPrepareTransaction** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processCommitTransactionOnePhase** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processCommitTransactionTwoPhase** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- virtual **Pointer< Command > processRollbackTransaction** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )

- virtual **Pointer< Command > processEndTransaction** (**TransactionInfo** \*info) throw ( exceptions::ActiveMQException )
- bool **isRestoreConsumers** () const
- void **setRestoreConsumers** (bool restoreConsumers)
- bool **isRestoreProducers** () const
- void **setRestoreProducers** (bool restoreProducers)
- bool **isRestoreSessions** () const
- void **setRestoreSessions** (bool restoreSessions)
- bool **isTrackTransactions** () const
- void **setTrackTransactions** (bool trackTransactions)
- bool **isRestoreTransaction** () const
- void **setRestoreTransaction** (bool restoreTransaction)
- bool **isTrackMessages** () const
- void **setTrackMessages** (bool trackMessages)
- int **getMaxCacheSize** () const
- void **setMaxCacheSize** (int maxCacheSize)

## Friends

- class **RemoveTransactionAction**

## 6.222.1 Constructor & Destructor Documentation

6.222.1.1 `activemq::state::ConnectionStateTracker::ConnectionStateTracker ()`

6.222.1.2 `virtual  
activemq::state::ConnectionStateTracker::~~ConnectionStateTracker ()  
[virtual]`

## 6.222.2 Member Function Documentation

6.222.2.1 `int activemq::state::ConnectionStateTracker::getMaxCacheSize () const  
[inline]`

6.222.2.2 `bool activemq::state::ConnectionStateTracker::isRestoreConsumers ()  
const [inline]`

6.222.2.3 `bool activemq::state::ConnectionStateTracker::isRestoreProducers ()  
const [inline]`

6.222.2.4 `bool activemq::state::ConnectionStateTracker::isRestoreSessions () const  
[inline]`

6.222.2.5 `bool activemq::state::ConnectionStateTracker::isRestoreTransaction ()  
const [inline]`

6.222.2.6 `bool activemq::state::ConnectionStateTracker::isTrackMessages () const  
[inline]`

6.222.2.7 `bool activemq::state::ConnectionStateTracker::isTrackTransactions ()  
const [inline]`

6.222.2.8 `virtual Pointer<Command> ac-  
tivemq::state::ConnectionStateTracker::processBeginTransaction  
(TransactionInfo * info) throw ( exceptions::ActiveMQException )  
[virtual]`

Implements `activemq::state::CommandVisitor` (p. 1071).

6.222.2.9 `virtual Pointer<Command> ac-  
tivemq::state::ConnectionStateTracker::processCommitTransactionOnePhase  
(TransactionInfo * info) throw ( exceptions::ActiveMQException )  
[virtual]`

Implements `activemq::state::CommandVisitor` (p. 1071).

6.222.2.10 `virtual Pointer<Command> ac-  
tivemq::state::ConnectionStateTracker::processCommitTransactionTwoPhase  
(TransactionInfo * info) throw ( exceptions::ActiveMQException )  
[virtual]`

Implements `activemq::state::CommandVisitor` (p. 1071).



**6.222.2.11** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processConnectionInfo (ConnectionInfo \* *info*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1072).

**6.222.2.12** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processConsumerInfo (ConsumerInfo \* *info*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1072).

**6.222.2.13** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processDestinationInfo (DestinationInfo \* *info*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1072).

**6.222.2.14** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processEndTransaction (TransactionInfo \* *info*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1072).

**6.222.2.15** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processMessage (Message \* *message*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1073).

**6.222.2.16** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processMessageAck (MessageAck \* *ack*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1073).

**6.222.2.17** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processPrepareTransaction (TransactionInfo \* *info*) throw ( exceptions::ActiveMQException )  
[virtual]

Implements activemq::state::CommandVisitor (p. 1073).

**6.222.2.18** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processProducerInfo (ProducerInfo * info) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1074).

**6.222.2.19** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRemoveConnection (ConnectionId * id) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1074).

**6.222.2.20** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRemoveConsumer (ConsumerId * id) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1074).

**6.222.2.21** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRemoveDestination (DestinationInfo * info) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1074).

**6.222.2.22** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRemoveProducer (ProducerId * id) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1074).

**6.222.2.23** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRemoveSession (SessionId * id) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1075).

**6.222.2.24** `virtual Pointer<Command> activemq::state::ConnectionStateTracker::processRollbackTransaction (TransactionInfo * info) throw ( exceptions::ActiveMQException )` [virtual]

Implements `activemq::state::CommandVisitor` (p. 1075).

**6.222.2.25** virtual Pointer<Command> activemq::state::ConnectionStateTracker::processSessionInfo (SessionInfo \* *info*) throw ( exceptions::ActiveMQException ) [virtual]

Implements activemq::state::CommandVisitor (p.1075).

**6.222.2.26** void activemq::state::ConnectionStateTracker::restore (const Pointer<transport::Transport > & *transport*) throw ( decaf::io::IOException )

**6.222.2.27** void activemq::state::ConnectionStateTracker::setMaxCacheSize (int *maxCacheSize*) [inline]

**6.222.2.28** void activemq::state::ConnectionStateTracker::setRestoreConsumers (bool *restoreConsumers*) [inline]

**6.222.2.29** void activemq::state::ConnectionStateTracker::setRestoreProducers (bool *restoreProducers*) [inline]

**6.222.2.30** void activemq::state::ConnectionStateTracker::setRestoreSessions (bool *restoreSessions*) [inline]

**6.222.2.31** void activemq::state::ConnectionStateTracker::setRestoreTransaction (bool *restoreTransaction*) [inline]

**6.222.2.32** void activemq::state::ConnectionStateTracker::setTrackMessages (bool *trackMessages*) [inline]

**6.222.2.33** void activemq::state::ConnectionStateTracker::setTrackTransactions (bool *trackTransactions*) [inline]

**6.222.2.34** Pointer<Tracked> activemq::state::ConnectionStateTracker::track (const Pointer< Command > & *command*) throw ( decaf::io::IOException )

**6.222.2.35** void activemq::state::ConnectionStateTracker::trackBack (const Pointer< Command > & *command*)

## 6.222.3 Friends And Related Function Documentation

**6.222.3.1** friend class RemoveTransactionAction [friend]

The documentation for this class was generated from the following file:

- src/main/activemq/state/ConnectionStateTracker.h

## 6.223 activemq::commands::ConsumerControl Class Reference

#include <src/main/activemq/commands/ConsumerControl.h> Inheritance diagram for activemq::commands::ConsumerControl:

### Public Member Functions

- **ConsumerControl** ()
- virtual **~ConsumerControl** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConsumerControl \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isClose** () const
- virtual void **setClose** (bool close)
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual int **getPrefetch** () const
- virtual void **setPrefetch** (int prefetch)
- virtual bool **isFlush** () const
- virtual void **setFlush** (bool flush)
- virtual bool **isStart** () const
- virtual void **setStart** (bool start)
- virtual bool **isStop** () const
- virtual void **setStop** (bool stop)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID\_CONSUMERCONTROL** = 17

## Protected Member Functions

- **ConsumerControl** (const **ConsumerControl** &)
- **ConsumerControl** & **operator=** (const **ConsumerControl** &)

## Protected Attributes

- bool **close**
- **Pointer**< **ConsumerId** > **consumerId**
- int **prefetch**
- bool **flush**
- bool **start**
- bool **stop**

### 6.223.1 Constructor & Destructor Documentation

**6.223.1.1** **activemq::commands::ConsumerControl::ConsumerControl** (const **ConsumerControl** &) [inline, protected]

**6.223.1.2** **activemq::commands::ConsumerControl::ConsumerControl** ()

**6.223.1.3** **virtual** **activemq::commands::ConsumerControl::~~ConsumerControl** () [virtual]

### 6.223.2 Member Function Documentation

**6.223.2.1** **virtual** **ConsumerControl\*** **activemq::commands::ConsumerControl::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.223.2.2** **virtual** void **activemq::commands::ConsumerControl::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.223.2.3 `virtual bool activemq::commands::ConsumerControl::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

### 6.223.2.4 `virtual Pointer<ConsumerId>& activemq::commands::ConsumerControl::getConsumerId ()` [virtual]

### 6.223.2.5 `virtual const Pointer<ConsumerId>& activemq::commands::ConsumerControl::getConsumerId () const` [virtual]

### 6.223.2.6 `virtual unsigned char activemq::commands::ConsumerControl::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements `activemq::commands::DataStructure` (p. 1464).

- 6.223.2.7 `virtual int activemq::commands::ConsumerControl::getPrefetch () const`  
[virtual]
- 6.223.2.8 `virtual bool activemq::commands::ConsumerControl::isClose () const`  
[virtual]
- 6.223.2.9 `virtual bool activemq::commands::ConsumerControl::isFlush () const`  
[virtual]
- 6.223.2.10 `virtual bool activemq::commands::ConsumerControl::isStart () const`  
[virtual]
- 6.223.2.11 `virtual bool activemq::commands::ConsumerControl::isStop () const`  
[virtual]
- 6.223.2.12 `ConsumerControl& activemq::commands::ConsumerControl::operator=`  
`(const ConsumerControl &) [inline, protected]`
- 6.223.2.13 `virtual void activemq::commands::ConsumerControl::setClose (bool`  
`close) [virtual]`
- 6.223.2.14 `virtual void activemq::commands::ConsumerControl::setConsumerId`  
`(const Pointer< ConsumerId > & consumerId) [virtual]`
- 6.223.2.15 `virtual void activemq::commands::ConsumerControl::setFlush (bool`  
`flush) [virtual]`
- 6.223.2.16 `virtual void activemq::commands::ConsumerControl::setPrefetch (int`  
`prefetch) [virtual]`
- 6.223.2.17 `virtual void activemq::commands::ConsumerControl::setStart (bool`  
`start) [virtual]`
- 6.223.2.18 `virtual void activemq::commands::ConsumerControl::setStop (bool`  
`stop) [virtual]`
- 6.223.2.19 `virtual std::string activemq::commands::ConsumerControl::toString ()`  
`const [virtual]`

Returns a string containing the information for this **DataSet** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

**6.223.2.20** `virtual Pointer<Command> activemq::commands::ConsumerControl::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.223.3 Field Documentation

**6.223.3.1** `bool activemq::commands::ConsumerControl::close [protected]`

**6.223.3.2** `Pointer<ConsumerId> activemq::commands::ConsumerControl::consumerId [protected]`

**6.223.3.3** `bool activemq::commands::ConsumerControl::flush [protected]`

**6.223.3.4** `const unsigned char activemq::commands::ConsumerControl::ID _- CONSUMERCONTROL = 17 [static]`

**6.223.3.5** `int activemq::commands::ConsumerControl::prefetch [protected]`

**6.223.3.6** `bool activemq::commands::ConsumerControl::start [protected]`

**6.223.3.7** `bool activemq::commands::ConsumerControl::stop [protected]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConsumerControl.h`



## 6.224 activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1255).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConsumerControlMarshaller.h>Inheritance  
diagram for activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller:

### Public Member Functions

- **ConsumerControlMarshaller** ()
- virtual **~ConsumerControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.224.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1255). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.224.2 Constructor & Destructor Documentation

**6.224.2.1** `activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::ConsumerControlMarshaller()` [inline]

**6.224.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::~~ConsumerControlMarshaller()` [inline, virtual]

## 6.224.3 Member Function Documentation

**6.224.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.224.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.224.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.224.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.224.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.224.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

**6.224.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ConsumerControlMarshaller.h`

## 6.225 activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1259).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConsumerControlMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller:

### Public Member Functions

- **ConsumerControlMarshaller** ()
- virtual **~ConsumerControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.225.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1259). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.225.2 Constructor & Destructor Documentation

**6.225.2.1** `activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::ConsumerControlMarshaller()` [inline]

**6.225.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::~~ConsumerControlMarshaller()` [inline, virtual]

## 6.225.3 Member Function Documentation

**6.225.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.225.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.225.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.225.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.225.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.225.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.225.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConsumerControlMarshaller.h



## 6.226 activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1263).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConsumerControlMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller:

### Public Member Functions

- **ConsumerControlMarshaller** ()
- virtual **~ConsumerControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.226.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1263). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.226.2 Constructor & Destructor Documentation

**6.226.2.1** `activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::ConsumerControlMarshaller()` [inline]

**6.226.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::~~ConsumerControlMarshaller()` [inline, virtual]

## 6.226.3 Member Function Documentation

**6.226.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.226.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.226.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.226.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.226.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.226.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.226.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConsumerControlMarshaller.h

## 6.227 activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1267).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConsumerControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller:

### Public Member Functions

- **ConsumerControlMarshaller** ()
- virtual **~ConsumerControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.227.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1267). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.227.2 Constructor & Destructor Documentation

**6.227.2.1** `activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::ConsumerControlMarshaller()` [inline]

**6.227.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::~~ConsumerControlMarshaller()` [inline, virtual]

## 6.227.3 Member Function Documentation

**6.227.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.227.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.227.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.227.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.227.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.227.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.227.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConsumerControlMarshaller.h



## 6.228 activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1271).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConsumerControlMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller:

### Public Member Functions

- **ConsumerControlMarshaller** ()
- virtual **~ConsumerControlMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.228.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p.1271). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.228.2 Constructor & Destructor Documentation

**6.228.2.1** `activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::ConsumerControlMarshaller()` [inline]

**6.228.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::~~ConsumerControlMarshaller()` [inline, virtual]

## 6.228.3 Member Function Documentation

**6.228.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.228.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.228.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.228.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.228.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.228.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.228.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConsumerControlMarshaller.h

## 6.229 activemq::commands::ConsumerId Class Reference

#include <src/main/activemq/commands/ConsumerId.h> Inheritance diagram for activemq::commands::ConsumerId:

### Public Types

- typedef decaf::lang::PointerComparator< ConsumerId > COMPARATOR

### Public Member Functions

- ConsumerId ()
- ConsumerId (const ConsumerId &other)
- ConsumerId (const SessionId &sessionId, long long consumerId)
- virtual ~ConsumerId ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual ConsumerId \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const DataStructure \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this DataStructure (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const DataStructure \*value) const  
*Compares the DataStructure (p. 1461) passed in to this one, and returns if they are equivalent.*
- const Pointer< SessionId > & **getParentId** () const
- virtual const std::string & **getConnectionId** () const
- virtual std::string & **getConnectionId** ()
- virtual void **setConnectionId** (const std::string &connectionId)
- virtual long long **getSessionId** () const
- virtual void **setSessionId** (long long sessionId)
- virtual long long **getValue** () const
- virtual void **setValue** (long long value)
- virtual int **compareTo** (const ConsumerId &value) const
- virtual bool **equals** (const ConsumerId &value) const
- virtual bool **operator==** (const ConsumerId &value) const
- virtual bool **operator<** (const ConsumerId &value) const
- ConsumerId & **operator=** (const ConsumerId &other)

## Static Public Attributes

- static const unsigned char **ID\_CONSUMERID** = 122

## Protected Attributes

- std::string **connectionId**
- long long **sessionId**
- long long **value**

### 6.229.1 Member Typedef Documentation

**6.229.1.1** `typedef decaf::lang::PointerComparator<ConsumerId>  
activemq::commands::ConsumerId::COMPARATOR`

### 6.229.2 Constructor & Destructor Documentation

**6.229.2.1** `activemq::commands::ConsumerId::ConsumerId ()`

**6.229.2.2** `activemq::commands::ConsumerId::ConsumerId (const ConsumerId &  
other)`

**6.229.2.3** `activemq::commands::ConsumerId::ConsumerId (const SessionId &  
sessionId, long long consumerId) [inline]`

References `activemq::commands::SessionId::getConnectionId()`, and `activemq::commands::SessionId::getValue()`.

**6.229.2.4** `virtual activemq::commands::ConsumerId::~~ConsumerId () [virtual]`

### 6.229.3 Member Function Documentation

**6.229.3.1** `virtual ConsumerId* activemq::commands::ConsumerId::cloneDataStructure ()  
const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.229.3.2** `virtual int activemq::commands::ConsumerId::compareTo (const  
ConsumerId & value) const [virtual]`

**6.229.3.3** `virtual void activemq::commands::ConsumerId::copyDataStructure  
(const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

**Parameters:**

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.229.3.4** `virtual bool activemq::commands::ConsumerId::equals (const ConsumerId & value) const` [virtual]

**6.229.3.5** `virtual bool activemq::commands::ConsumerId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.229.3.6** `virtual std::string& activemq::commands::ConsumerId::getConnectionId ()` [virtual]

**6.229.3.7** `virtual const std::string& activemq::commands::ConsumerId::getConnectionId () const` [virtual]

**6.229.3.8** `virtual unsigned char activemq::commands::ConsumerId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.229.3.9 `const Pointer<SessionId>& activemq::commands::ConsumerId::getParentId () const`
- 6.229.3.10 `virtual long long activemq::commands::ConsumerId::getSessionId () const [virtual]`
- 6.229.3.11 `virtual long long activemq::commands::ConsumerId::getValue () const [virtual]`
- 6.229.3.12 `virtual bool activemq::commands::ConsumerId::operator< (const ConsumerId & value) const [virtual]`
- 6.229.3.13 `ConsumerId& activemq::commands::ConsumerId::operator= (const ConsumerId & other)`
- 6.229.3.14 `virtual bool activemq::commands::ConsumerId::operator== (const ConsumerId & value) const [virtual]`
- 6.229.3.15 `virtual void activemq::commands::ConsumerId::setConnectionId (const std::string & connectionId) [virtual]`
- 6.229.3.16 `virtual void activemq::commands::ConsumerId::setSessionId (long long sessionId) [virtual]`
- 6.229.3.17 `virtual void activemq::commands::ConsumerId::setValue (long long value) [virtual]`
- 6.229.3.18 `virtual std::string activemq::commands::ConsumerId::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p.718).

## 6.229.4 Field Documentation

- 6.229.4.1 `std::string activemq::commands::ConsumerId::connectionId [protected]`
- 6.229.4.2 `const unsigned char activemq::commands::ConsumerId::ID _- CONSUMERID = 122 [static]`

Referenced by `activemq::state::CommandVisitorAdapter::processRemoveInfo()`.



**6.229.4.3**   `long long activemq::commands::ConsumerId::sessionId`   [protected]

**6.229.4.4**   `long long activemq::commands::ConsumerId::value`   [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ConsumerId.h`

## 6.230 activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1280).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConsumerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller:

### Public Member Functions

- **ConsumerIdMarshaller** ()
- virtual **~ConsumerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.230.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1280). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.230.2 Constructor & Destructor Documentation

**6.230.2.1** `activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::ConsumerIdMarshaller()` [inline]

**6.230.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::~~ConsumerIdMarshaller()` [inline, virtual]

## 6.230.3 Member Function Documentation

**6.230.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.230.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.230.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.230.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.230.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.230.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.230.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ConsumerIdMarshaller.h

## 6.231 activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1284).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConsumerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller:

### Public Member Functions

- **ConsumerIdMarshaller** ()
- virtual **~ConsumerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.231.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1284). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.231.2 Constructor & Destructor Documentation

**6.231.2.1** `activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::ConsumerIdMarshaller()` [inline]

**6.231.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::~~ConsumerIdMarshaller()` [inline, virtual]

## 6.231.3 Member Function Documentation

**6.231.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.231.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.231.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.231.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.231.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.231.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.231.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConsumerIdMarshaller.h

## 6.232 activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1288).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConsumerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller:

### Public Member Functions

- **ConsumerIdMarshaller** ()
- virtual **~ConsumerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.232.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1288). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.232.2 Constructor & Destructor Documentation

**6.232.2.1** `activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::ConsumerIdMarshaller()` [inline]

**6.232.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::~~ConsumerIdMarshaller()` [inline, virtual]

## 6.232.3 Member Function Documentation

**6.232.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.232.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.232.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.232.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.232.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.232.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.232.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConsumerIdMarshaller.h

## 6.233 activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1292).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConsumerIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller:

### Public Member Functions

- **ConsumerIdMarshaller** ()
- virtual **~ConsumerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.233.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1292). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.233.2 Constructor & Destructor Documentation

**6.233.2.1** `activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::ConsumerIdMarshaller()` [inline]

**6.233.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::~~ConsumerIdMarshaller()` [inline, virtual]

## 6.233.3 Member Function Documentation

**6.233.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.233.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.233.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.233.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.233.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.233.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.233.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ConsumerIdMarshaller.h

## 6.234 activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1296).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConsumerIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller:

### Public Member Functions

- **ConsumerIdMarshaller** ()
- virtual **~ConsumerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.234.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p.1296). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.234.2 Constructor & Destructor Documentation

**6.234.2.1** `activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::ConsumerIdMarshaller()` [inline]

**6.234.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::~~ConsumerIdMarshaller()` [inline, virtual]

## 6.234.3 Member Function Documentation

**6.234.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.234.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.234.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.234.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.234.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.234.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.234.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConsumerIdMarshaller.h

## 6.235 activemq::commands::ConsumerInfo Class Reference

#include <src/main/activemq/commands/ConsumerInfo.h> Inheritance diagram for activemq::commands::ConsumerInfo:

### Public Member Functions

- **ConsumerInfo** ()
- virtual **~ConsumerInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ConsumerInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual bool **isBrowser** () const
- virtual void **setBrowser** (bool browser)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual int **getPrefetchSize** () const
- virtual void **setPrefetchSize** (int prefetchSize)
- virtual int **getMaximumPendingMessageLimit** () const
- virtual void **setMaximumPendingMessageLimit** (int maximumPendingMessageLimit)
- virtual bool **isDispatchAsync** () const
- virtual void **setDispatchAsync** (bool dispatchAsync)
- virtual const std::string & **getSelector** () const
- virtual std::string & **getSelector** ()
- virtual void **setSelector** (const std::string &selector)
- virtual const std::string & **getSubscriptionName** () const
- virtual std::string & **getSubscriptionName** ()
- virtual void **setSubscriptionName** (const std::string &subscriptionName)
- virtual bool **isNoLocal** () const

- virtual void **setNoLocal** (bool **noLocal**)
- virtual bool **isExclusive** () const
- virtual void **setExclusive** (bool **exclusive**)
- virtual bool **isRetroactive** () const
- virtual void **setRetroactive** (bool **retroactive**)
- virtual unsigned char **getPriority** () const
- virtual void **setPriority** (unsigned char **priority**)
- virtual const std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** () const
- virtual std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** ()
- virtual void **setBrokerPath** (const std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **brokerPath**)
- virtual const **Pointer**< **BooleanExpression** > & **getAdditionalPredicate** () const
- virtual **Pointer**< **BooleanExpression** > & **getAdditionalPredicate** ()
- virtual void **setAdditionalPredicate** (const **Pointer**< **BooleanExpression** > & **additionalPredicate**)
- virtual bool **isNetworkSubscription** () const
- virtual void **setNetworkSubscription** (bool **networkSubscription**)
- virtual bool **isOptimizedAcknowledge** () const
- virtual void **setOptimizedAcknowledge** (bool **optimizedAcknowledge**)
- virtual bool **isNoRangeAcks** () const
- virtual void **setNoRangeAcks** (bool **noRangeAcks**)
- virtual const std::vector< **decaf::lang::Pointer**< **ConsumerId** > > & **getNetworkConsumerPath** () const
- virtual std::vector< **decaf::lang::Pointer**< **ConsumerId** > > & **getNetworkConsumerPath** ()
- virtual void **setNetworkConsumerPath** (const std::vector< **decaf::lang::Pointer**< **ConsumerId** > > & **networkConsumerPath**)
- virtual bool **isConsumerInfo** () const
- virtual **Pointer**< **Command** > **visit** (**activemq::state::CommandVisitor** \*visitor) throw ( **exceptions::ActiveMQException** )

*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID \_CONSUMERINFO** = 5

## Protected Member Functions

- **ConsumerInfo** (const **ConsumerInfo** &)
- **ConsumerInfo** & **operator=** (const **ConsumerInfo** &)

## Protected Attributes

- **Pointer**< **ConsumerId** > **consumerId**
- bool **browser**
- **Pointer**< **ActiveMQDestination** > **destination**
- int **prefetchSize**

- int **maximumPendingMessageLimit**
- bool **dispatchAsync**
- std::string **selector**
- std::string **subscriptionName**
- bool **noLocal**
- bool **exclusive**
- bool **retroactive**
- unsigned char **priority**
- std::vector< decaf::lang::Pointer< BrokerId > > **brokerPath**
- **Pointer< BooleanExpression > additionalPredicate**
- bool **networkSubscription**
- bool **optimizedAcknowledge**
- bool **noRangeAcks**
- std::vector< decaf::lang::Pointer< ConsumerId > > **networkConsumerPath**

### 6.235.1 Constructor & Destructor Documentation

- 6.235.1.1** `activemq::commands::ConsumerInfo::ConsumerInfo (const ConsumerInfo &) [inline, protected]`
- 6.235.1.2** `activemq::commands::ConsumerInfo::ConsumerInfo ()`
- 6.235.1.3** `virtual activemq::commands::ConsumerInfo::~~ConsumerInfo () [virtual]`

### 6.235.2 Member Function Documentation

- 6.235.2.1** `virtual ConsumerInfo* activemq::commands::ConsumerInfo::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

- 6.235.2.2** `virtual void activemq::commands::ConsumerInfo::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).



**6.235.2.3 virtual bool activemq::commands::ConsumerInfo::equals (const DataStructure \* *value*) const [virtual]**

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.235.2.4 virtual Pointer<BooleanExpression>& activemq::commands::ConsumerInfo::getAdditionalPredicate () [virtual]****6.235.2.5 virtual const Pointer<BooleanExpression>& activemq::commands::ConsumerInfo::getAdditionalPredicate () const [virtual]****6.235.2.6 virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ConsumerInfo::getBrokerPath () [virtual]****6.235.2.7 virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ConsumerInfo::getBrokerPath () const [virtual]****6.235.2.8 virtual Pointer<ConsumerId>& activemq::commands::ConsumerInfo::getConsumerId () [virtual]****6.235.2.9 virtual const Pointer<ConsumerId>& activemq::commands::ConsumerInfo::getConsumerId () const [virtual]****6.235.2.10 virtual unsigned char activemq::commands::ConsumerInfo::getDataStructureType () const [virtual]**

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.235.2.11 `virtual Pointer<ActiveMQDestination>& activemq::commands::ConsumerInfo::getDestination ()`  
[virtual]
- 6.235.2.12 `virtual const Pointer<ActiveMQDestination>& activemq::commands::ConsumerInfo::getDestination () const` [virtual]
- 6.235.2.13 `virtual int activemq::commands::ConsumerInfo::getMaximumPendingMessageLimit () const` [virtual]
- 6.235.2.14 `virtual std::vector< decaf::lang::Pointer<ConsumerId> >& activemq::commands::ConsumerInfo::getNetworkConsumerPath ()`  
[virtual]
- 6.235.2.15 `virtual const std::vector< decaf::lang::Pointer<ConsumerId> >& activemq::commands::ConsumerInfo::getNetworkConsumerPath () const` [virtual]
- 6.235.2.16 `virtual int activemq::commands::ConsumerInfo::getPrefetchSize () const`  
[virtual]
- 6.235.2.17 `virtual unsigned char activemq::commands::ConsumerInfo::getPriority () const` [virtual]
- 6.235.2.18 `virtual std::string& activemq::commands::ConsumerInfo::getSelector ()`  
[virtual]
- 6.235.2.19 `virtual const std::string& activemq::commands::ConsumerInfo::getSelector () const`  
[virtual]
- 6.235.2.20 `virtual std::string& activemq::commands::ConsumerInfo::getSubscriptionName ()` [virtual]
- 6.235.2.21 `virtual const std::string& activemq::commands::ConsumerInfo::getSubscriptionName () const` [virtual]
- 6.235.2.22 `virtual bool activemq::commands::ConsumerInfo::isBrowser () const`  
[virtual]
- 6.235.2.23 `virtual bool activemq::commands::ConsumerInfo::isConsumerInfo () const` [inline, virtual]

**Returns:**

an answer of true to the `isConsumerInfo()` (p. 1304) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).

- 6.235.2.24 virtual bool activemq::commands::ConsumerInfo::isDispatchAsync () const [virtual]
- 6.235.2.25 virtual bool activemq::commands::ConsumerInfo::isExclusive () const [virtual]
- 6.235.2.26 virtual bool activemq::commands::ConsumerInfo::isNetworkSubscription () const [virtual]
- 6.235.2.27 virtual bool activemq::commands::ConsumerInfo::isNoLocal () const [virtual]
- 6.235.2.28 virtual bool activemq::commands::ConsumerInfo::isNoRangeAcks () const [virtual]
- 6.235.2.29 virtual bool activemq::commands::ConsumerInfo::isOptimizedAcknowledge () const [virtual]
- 6.235.2.30 virtual bool activemq::commands::ConsumerInfo::isRetroactive () const [virtual]
- 6.235.2.31 ConsumerInfo& activemq::commands::ConsumerInfo::operator= (const ConsumerInfo &) [inline, protected]
- 6.235.2.32 virtual void activemq::commands::ConsumerInfo::setAdditionalPredicate (const Pointer< BooleanExpression > & *additionalPredicate*) [virtual]
- 6.235.2.33 virtual void activemq::commands::ConsumerInfo::setBrokerPath (const std::vector< decaf::lang::Pointer< BrokerId > > & *brokerPath*) [virtual]
- 6.235.2.34 virtual void activemq::commands::ConsumerInfo::setBrowser (bool *browser*) [virtual]
- 6.235.2.35 virtual void activemq::commands::ConsumerInfo::setConsumerId (const Pointer< ConsumerId > & *consumerId*) [virtual]
- 6.235.2.36 virtual void activemq::commands::ConsumerInfo::setDestination (const Pointer< ActiveMQDestination > & *destination*) [virtual]
- 6.235.2.37 virtual void activemq::commands::ConsumerInfo::setDispatchAsync (bool *dispatchAsync*) [virtual]
- 6.235.2.38 virtual void activemq::commands::ConsumerInfo::setExclusive (bool *exclusive*) [virtual]
- 6.235.2.39 virtual void activemq::commands::ConsumerInfo::setMaximumPendingMessageLimit (int *maximumPendingMessageLimit*) [virtual]
- 6.235.2.40 virtual void activemq::commands::ConsumerInfo::setNetworkConsumerPath (const std::vector< decaf::lang::Pointer< ConsumerId > > & *networkConsumerPath*) [virtual]

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- 6.235.2.41 virtual void activemq::commands::ConsumerInfo::setNetworkSubscription (bool *networkSubscription*) [virtual]

- 6.235.2.42 virtual void activemq::commands::ConsumerInfo::setNoLocal (bool *noLocal*) [virtual]

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

**6.235.2.51** `virtual Pointer<Command> activemq::commands::ConsumerInfo::visit  
(activemq::state::CommandVisitor * visitor) throw (  
exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.235.3 Field Documentation

- 6.235.3.1 `Pointer<BooleanExpression> activemq::commands::ConsumerInfo::additionalPredicate` [protected]
- 6.235.3.2 `std::vector< decaf::lang::Pointer<BrokerId> > activemq::commands::ConsumerInfo::brokerPath` [protected]
- 6.235.3.3 `bool activemq::commands::ConsumerInfo::browser` [protected]
- 6.235.3.4 `Pointer<ConsumerId> activemq::commands::ConsumerInfo::consumerId` [protected]
- 6.235.3.5 `Pointer<ActiveMQDestination> activemq::commands::ConsumerInfo::destination` [protected]
- 6.235.3.6 `bool activemq::commands::ConsumerInfo::dispatchAsync` [protected]
- 6.235.3.7 `bool activemq::commands::ConsumerInfo::exclusive` [protected]
- 6.235.3.8 `const unsigned char activemq::commands::ConsumerInfo::ID_ - CONSUMERINFO = 5` [static]
- 6.235.3.9 `int activemq::commands::ConsumerInfo::maximumPendingMessageLimit` [protected]
- 6.235.3.10 `std::vector< decaf::lang::Pointer<ConsumerId> > activemq::commands::ConsumerInfo::networkConsumerPath` [protected]
- 6.235.3.11 `bool activemq::commands::ConsumerInfo::networkSubscription` [protected]
- 6.235.3.12 `bool activemq::commands::ConsumerInfo::noLocal` [protected]
- 6.235.3.13 `bool activemq::commands::ConsumerInfo::noRangeAcks` [protected]
- 6.235.3.14 `bool activemq::commands::ConsumerInfo::optimizedAcknowledge` [protected]
- 6.235.3.15 `int activemq::commands::ConsumerInfo::prefetchSize` [protected]
- 6.235.3.16 `unsigned char activemq::commands::ConsumerInfo::priority` [protected]
- 6.235.3.17 `bool activemq::commands::ConsumerInfo::retroactive` [protected]
- 6.235.3.18 `std::string activemq::commands::ConsumerInfo::selector` [protected]
- 6.235.3.19 `std::string activemq::commands::ConsumerInfo::subscriptionName` [protected]

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The documentation for this class was generated from the following file:

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- `src/main/activemq/commands/ConsumerInfo.h`

## 6.236 activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p.1309).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ConsumerInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller:

### Public Member Functions

- **ConsumerInfoMarshaller** ()
- virtual **~ConsumerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.236.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p.1309). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.236.2 Constructor & Destructor Documentation

**6.236.2.1** `activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::ConsumerInfoMarshaller()` [inline]

**6.236.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::~~ConsumerInfoMarshaller()` [inline, virtual]

## 6.236.3 Member Function Documentation

**6.236.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.236.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.236.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.236.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.236.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.236.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

**6.236.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ConsumerInfoMarshaller.h`

## 6.237 activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1313).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ConsumerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller:

### Public Member Functions

- **ConsumerInfoMarshaller** ()
- virtual **~ConsumerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.237.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1313). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.237.2 Constructor & Destructor Documentation

**6.237.2.1** `activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::ConsumerInfoMarshaller()` [inline]

**6.237.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::~~ConsumerInfoMarshaller()` [inline, virtual]

## 6.237.3 Member Function Documentation

**6.237.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.237.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.237.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.237.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.237.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.237.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.237.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ConsumerInfoMarshaller.h

## 6.238 activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1317).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ConsumerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller:

### Public Member Functions

- **ConsumerInfoMarshaller** ()
- virtual **~ConsumerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.238.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1317). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.238.2 Constructor & Destructor Documentation

**6.238.2.1** `activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::ConsumerInfoMarshaller()` [inline]

**6.238.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::~~ConsumerInfoMarshaller()` [inline, virtual]

## 6.238.3 Member Function Documentation

**6.238.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.238.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.238.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.238.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.238.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.238.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.238.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ConsumerInfoMarshaller.h

## 6.239 activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p.1321).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ConsumerInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller:

### Public Member Functions

- **ConsumerInfoMarshaller** ()
- virtual **~ConsumerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.239.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p.1321). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.239.2 Constructor & Destructor Documentation

**6.239.2.1** `activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::ConsumerInfoMarshaller()` [inline]

**6.239.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::~~ConsumerInfoMarshaller()` [inline, virtual]

## 6.239.3 Member Function Documentation

**6.239.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.239.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.239.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 679).

**6.239.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 680).

**6.239.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 681).

**6.239.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 682).

**6.239.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 683).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ConsumerInfoMarshaller.h`

## 6.240 activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1325).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ConsumerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller:

### Public Member Functions

- **ConsumerInfoMarshaller** ()
- virtual **~ConsumerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.240.1 Detailed Description

Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1325). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.240.2 Constructor & Destructor Documentation

**6.240.2.1** `activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::ConsumerInfoMarshaller()` [inline]

**6.240.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::~~ConsumerInfoMarshaller()` [inline, virtual]

## 6.240.3 Member Function Documentation

**6.240.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.240.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.240.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.240.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.240.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.240.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.240.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ConsumerInfoMarshaller.h

## 6.241 activemq::state::ConsumerState Class Reference

```
#include <src/main/activemq/state/ConsumerState.h>
```

### Public Member Functions

- **ConsumerState** (const **Pointer**< **ConsumerInfo** > &info)
- virtual **~ConsumerState** ()
- **std::string toString** () const
- const **Pointer**< **ConsumerInfo** > & **getInfo** () const

### 6.241.1 Constructor & Destructor Documentation

**6.241.1.1** **activemq::state::ConsumerState::ConsumerState** (const **Pointer**< **ConsumerInfo** > & *info*)

**6.241.1.2** virtual **activemq::state::ConsumerState::~~ConsumerState** () [virtual]

### 6.241.2 Member Function Documentation

**6.241.2.1** const **Pointer**<**ConsumerInfo**>& **activemq::state::ConsumerState::getInfo** () const [inline]

**6.241.2.2** **std::string** **activemq::state::ConsumerState::toString** () const

The documentation for this class was generated from the following file:

- **src/main/activemq/state/ConsumerState.h**

## 6.242 activemq::commands::ControlCommand Class Reference

#include <src/main/activemq/commands/ControlCommand.h> Inheritance diagram for activemq::commands::ControlCommand:

### Public Member Functions

- **ControlCommand** ()
- virtual **~ControlCommand** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ControlCommand \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getCommand** () const
- virtual std::string & **getCommand** ()
- virtual void **setCommand** (const std::string &command)
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_CONTROLCOMMAND** = 14

### Protected Member Functions

- **ControlCommand** (const **ControlCommand** &)
- **ControlCommand & operator=** (const **ControlCommand** &)

### Protected Attributes

- std::string **command**

## 6.242.1 Constructor & Destructor Documentation

**6.242.1.1** `activemq::commands::ControlCommand::ControlCommand (const ControlCommand &) [inline, protected]`

**6.242.1.2** `activemq::commands::ControlCommand::ControlCommand ()`

**6.242.1.3** `virtual activemq::commands::ControlCommand::~~ControlCommand () [virtual]`

## 6.242.2 Member Function Documentation

**6.242.2.1** `virtual ControlCommand* activemq::commands::ControlCommand::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.242.2.2** `virtual void activemq::commands::ControlCommand::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.242.2.3** `virtual bool activemq::commands::ControlCommand::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

- 6.242.2.4** `virtual std::string& activemq::commands::ControlCommand::getCommand ()`  
[virtual]
- 6.242.2.5** `virtual const std::string& activemq::commands::ControlCommand::getCommand ()`  
`const` [virtual]
- 6.242.2.6** `virtual unsigned char activemq::commands::ControlCommand::getDataStructureType () const`  
[virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.242.2.7** `ControlCommand& activemq::commands::ControlCommand::operator=`  
`(const ControlCommand &)` [inline, protected]
- 6.242.2.8** `virtual void activemq::commands::ControlCommand::setCommand (const`  
`std::string & command)` [virtual]
- 6.242.2.9** `virtual std::string activemq::commands::ControlCommand::toString ()`  
`const` [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

- 6.242.2.10** `virtual Pointer<Command> activemq::commands::ControlCommand::visit`  
`(activemq::state::CommandVisitor * visitor) throw (`  
`exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

### 6.242.3 Field Documentation

**6.242.3.1** `std::string activemq::commands::ControlCommand::command`  
[protected]

**6.242.3.2** `const unsigned char activemq::commands::ControlCommand::ID_ -  
CONTROLCOMMAND = 14` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ControlCommand.h`

## 6.243 activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1334).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ControlCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller:

### Public Member Functions

- **ControlCommandMarshaller** ()
- virtual **~ControlCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.243.1 Detailed Description

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1334). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.243.2 Constructor & Destructor Documentation

6.243.2.1 **activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::ControlComm**  
( ) [inline]

6.243.2.2 **virtual**  
**activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::~~ControlComm**  
( ) [inline, virtual]

## 6.243.3 Member Function Documentation

6.243.3.1 **virtual commands::DataStructure\* ac-**  
**tivemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::createObject**  
( ) const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1419).

6.243.3.2 **virtual unsigned char ac-**  
**tivemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::getDataStructur**  
( ) const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1424).

6.243.3.3 **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::looseMarshal**  
( **OpenWireFormat \* *wireFormat***, **commands::DataStructure \* *dataStructure***, **decaf::io::DataOutputStream \* *dataOut***) throw ( **decaf::io::IOException** ) [virtual]

Write a object instance to data output stream.

### Parameters:

***wireFormat*** - describes the wire format of the broker

***dataStructure*** - Object to be marshaled

***dataOut*** - BinaryWriter that provides that data sink

### Exceptions:

***IOException*** if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.243.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.243.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.243.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.243.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ControlCommandMarshaller.h

## 6.244 activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1338).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ControlCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller:

### Public Member Functions

- **ControlCommandMarshaller** ()
- virtual **~ControlCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.244.1 Detailed Description

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1338). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.244.2 Constructor & Destructor Documentation

6.244.2.1 **activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::ControlComm**  
( ) [inline]

6.244.2.2 **virtual**  
**activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::~~ControlComm**  
( ) [inline, virtual]

## 6.244.3 Member Function Documentation

6.244.3.1 **virtual commands::DataStructure\* ac-**  
**tivemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::createObject**  
( ) const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1419).

6.244.3.2 **virtual unsigned char ac-**  
**tivemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::getDataStructur**  
( ) const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1424).

6.244.3.3 **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::looseMarshal**  
( **OpenWireFormat \* *wireFormat***, **commands::DataStructure \* *dataStructure***, **decaf::io::DataOutputStream \* *dataOut***) throw ( **decaf::io::IOException** ) [virtual]

Write a object instance to data output stream.

### Parameters:

***wireFormat*** - describes the wire format of the broker

***dataStructure*** - Object to be marshaled

***dataOut*** - BinaryWriter that provides that data sink

### Exceptions:

***IOException*** if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.244.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.244.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.244.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.244.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ControlCommandMarshaller.h

## 6.245 activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1342).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ControlCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller:

### Public Member Functions

- **ControlCommandMarshaller** ()
- virtual **~ControlCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.245.1 Detailed Description

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1342). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.245.2 Constructor & Destructor Documentation

**6.245.2.1** `activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::ControlComm`  
`() [inline]`

**6.245.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::~~ControlComm`  
`() [inline, virtual]`

## 6.245.3 Member Function Documentation

**6.245.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.245.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::getDataStructur`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.245.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.245.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.245.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.245.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.245.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ControlCommandMarshaller.h

## 6.246 activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1346).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ControlCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller:

### Public Member Functions

- **ControlCommandMarshaller** ()
- virtual **~ControlCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.246.1 Detailed Description

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1346). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.246.2 Constructor & Destructor Documentation

**6.246.2.1** `activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::ControlComm`  
`() [inline]`

**6.246.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::~~ControlComm`  
`() [inline, virtual]`

## 6.246.3 Member Function Documentation

**6.246.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.246.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::getDataStructur`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.246.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`  
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.246.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.246.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.246.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.246.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ControlCommandMarshaller.h

## 6.247 activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1350).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ControlCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller:

### Public Member Functions

- **ControlCommandMarshaller** ()
- virtual **~ControlCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.247.1 Detailed Description

Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1350). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.247.2 Constructor & Destructor Documentation

**6.247.2.1** `activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::ControlComm  
( ) [inline]`

**6.247.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::~~ControlComm  
( ) [inline, virtual]`

## 6.247.3 Member Function Documentation

**6.247.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.247.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::getDataStructur  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.247.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.247.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.247.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.247.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.247.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ControlCommandMarshaller.h

## 6.248 decaf::util::concurrent::CountDownLatch Class Reference

```
#include <src/main/decaf/util/concurrent/CountDownLatch.h>
```

### Public Member Functions

- **CountDownLatch** (int count)  
*Constructor.*
- virtual **~CountDownLatch** ()
- virtual void **await** () throw ( lang::Exception )  
*Waits for the Count to be zero, and then returns.*
- virtual bool **await** (unsigned long timeOut) throw ( lang::Exception )  
*Waits for the Count to hit zero, or a timeout.*
- virtual void **countDown** ()  
*Counts down the latch, releasing all waiting threads when the count hits zero.*
- virtual int **getCount** () const  
*Gets the current count.*

### 6.248.1 Constructor & Destructor Documentation

#### 6.248.1.1 decaf::util::concurrent::CountDownLatch::CountDownLatch (int count)

Constructor.

##### Parameters:

*count* - number to count down from.

#### 6.248.1.2 virtual decaf::util::concurrent::CountDownLatch::~~CountDownLatch () [virtual]

### 6.248.2 Member Function Documentation

#### 6.248.2.1 virtual bool decaf::util::concurrent::CountDownLatch::await (unsigned long timeOut) throw ( lang::Exception ) [virtual]

Waits for the Count to hit zero, or a timeout.

##### Parameters:

*timeOut* - time in milliseconds to wait.

##### Returns:

true if the wait made it to count zero, otherwise false

**6.248.2.2 virtual void decaf::util::concurrent::CountDownLatch::await () throw (lang::Exception) [virtual]**

Waits for the Count to be zero, and then returns.

**Exceptions:**

*Exception*

**6.248.2.3 virtual void decaf::util::concurrent::CountDownLatch::countDown () [virtual]**

Counts down the latch, releasing all waiting threads when the count hits zero.

**6.248.2.4 virtual int decaf::util::concurrent::CountDownLatch::getCount () const [inline, virtual]**

Gets the current count.

**Returns:**

int count value

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**CountDownLatch.h**

## 6.249 activemq::commands::DataArrayResponse Class Reference

#include <src/main/activemq/commands/DataArrayResponse.h> Inheritance diagram for activemq::commands::DataArrayResponse:

### Public Member Functions

- **DataArrayResponse** ()
- virtual **~DataArrayResponse** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **DataArrayResponse \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::vector< **decaf::lang::Pointer**< **DataStructure** > > & **getData** () const
- virtual std::vector< **decaf::lang::Pointer**< **DataStructure** > > & **getData** ()
- virtual void **setData** (const std::vector< **decaf::lang::Pointer**< **DataStructure** > > &data)

### Static Public Attributes

- static const unsigned char **ID\_DATAARRAYRESPONSE** = 33

### Protected Member Functions

- **DataArrayResponse** (const **DataArrayResponse** &)
- **DataArrayResponse** & **operator=** (const **DataArrayResponse** &)

### Protected Attributes

- std::vector< **decaf::lang::Pointer**< **DataStructure** > > **data**

## 6.249.1 Constructor & Destructor Documentation

**6.249.1.1** `activemq::commands::DataArrayResponse::DataArrayResponse (const DataArrayResponse &) [inline, protected]`

**6.249.1.2** `activemq::commands::DataArrayResponse::DataArrayResponse ()`

**6.249.1.3** `virtual activemq::commands::DataArrayResponse::~~DataArrayResponse () [virtual]`

## 6.249.2 Member Function Documentation

**6.249.2.1** `virtual DataArrayResponse* activemq::commands::DataArrayResponse::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.249.2.2** `virtual void activemq::commands::DataArrayResponse::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.249.2.3** `virtual bool activemq::commands::DataArrayResponse::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::Response` (p. 2782).

- 6.249.2.4 `virtual std::vector< decaf::lang::Pointer<DataStructure> >& activemq::commands::DataArrayResponse::getData () [virtual]`
- 6.249.2.5 `virtual const std::vector< decaf::lang::Pointer<DataStructure> >& activemq::commands::DataArrayResponse::getData () const [virtual]`
- 6.249.2.6 `virtual unsigned char activemq::commands::DataArrayResponse::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::Response** (p. 2783).

- 6.249.2.7 `DataArrayResponse& activemq::commands::DataArrayResponse::operator= (const DataArrayResponse &) [inline, protected]`
- 6.249.2.8 `virtual void activemq::commands::DataArrayResponse::setData (const std::vector< decaf::lang::Pointer< DataStructure > > & data) [virtual]`
- 6.249.2.9 `virtual std::string activemq::commands::DataArrayResponse::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Response** (p. 2783).

### 6.249.3 Field Documentation

- 6.249.3.1 `std::vector< decaf::lang::Pointer<DataStructure> > activemq::commands::DataArrayResponse::data [protected]`
- 6.249.3.2 `const unsigned char activemq::commands::DataArrayResponse::ID_ - DATAARRAYRESPONSE = 33 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/DataArrayResponse.h`



## 6.250 activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1359).

#include <src/main/activemq/wireformat/openwire/marshal/v3/DataArrayResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller:

### Public Member Functions

- **DataArrayResponseMarshaller** ()
- virtual **~DataArrayResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.250.1 Detailed Description

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1359). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.250.2 Constructor & Destructor Documentation

**6.250.2.1** `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::DataArrayResponseMarshaller()` [inline]

**6.250.2.2** `virtual activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::~DataArrayResponseMarshaller()` [inline, virtual]

## 6.250.3 Member Function Documentation

**6.250.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.250.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.250.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.250.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.250.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.250.3.6** virtual void activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2799).

**6.250.3.7** virtual void activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2800).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**DataArrayResponseMarshaller.h**

## 6.251 activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p.1363).

#include <src/main/activemq/wireformat/openwire/marshal/v4/DataArrayResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller:

### Public Member Functions

- **DataArrayResponseMarshaller** ()
- virtual **~DataArrayResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.251.1 Detailed Description

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p.1363). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.251.2 Constructor & Destructor Documentation

**6.251.2.1** `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::DataArrayResponseMarshaller()` [inline]

**6.251.2.2** `virtual activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::~DataArrayResponseMarshaller()` [inline, virtual]

## 6.251.3 Member Function Documentation

**6.251.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.251.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.251.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.251.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.251.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.251.3.6** virtual void activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2814).

**6.251.3.7** virtual void activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2815).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**DataArrayResponseMarshaller.h**



## 6.252 activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1367).

#include <src/main/activemq/wireformat/openwire/marshal/v1/DataArrayResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller:

### Public Member Functions

- **DataArrayResponseMarshaller** ()
- virtual **~DataArrayResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.252.1 Detailed Description

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1367). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.252.2 Constructor & Destructor Documentation

**6.252.2.1** `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::DataArrayResponseMarshaller()` [inline]

**6.252.2.2** `virtual activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::~DataArrayResponseMarshaller()` [inline, virtual]

## 6.252.3 Member Function Documentation

**6.252.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.252.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.252.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.252.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2808).

**6.252.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2808).

**6.252.3.6** virtual void activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2809).

**6.252.3.7** virtual void activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2810).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**DataArrayResponseMarshaller.h**

## 6.253 activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1371).

#include <src/main/activemq/wireformat/openwire/marshal/v5/DataArrayResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller:

### Public Member Functions

- **DataArrayResponseMarshaller** ()
- virtual **~DataArrayResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.253.1 Detailed Description

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1371). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.253.2 Constructor & Destructor Documentation

**6.253.2.1** `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::DataArrayResponseMarshaller()` [inline]

**6.253.2.2** `virtual activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::~DataArrayResponseMarshaller()` [inline, virtual]

## 6.253.3 Member Function Documentation

**6.253.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.253.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.253.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2802).

**6.253.3.4** **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::looseUnmarsh**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2803).

**6.253.3.5** **virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::tightMarshal**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \***  
***dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2803).

**6.253.3.6** virtual void activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2804).

**6.253.3.7** virtual void activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2805).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**DataArrayResponseMarshaller.h**



## 6.254 activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1375).

#include <src/main/activemq/wireformat/openwire/marshal/v2/DataArrayResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller:

### Public Member Functions

- **DataArrayResponseMarshaller** ()
- virtual **~DataArrayResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.254.1 Detailed Description

Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1375). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.254.2 Constructor & Destructor Documentation

**6.254.2.1** `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::DataArrayResponseMarshaller()` [inline]

**6.254.2.2** `virtual activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::~DataArrayResponseMarshaller()` [inline, virtual]

## 6.254.3 Member Function Documentation

**6.254.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.254.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.254.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.254.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.254.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.254.3.6** virtual void activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2794).

**6.254.3.7** virtual void activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2795).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**DataArrayResponseMarshaller.h**

## 6.255 decaf::io::DataInputStream Class Reference

A data input stream lets an application read primitive Java data types from an underlying input stream in a machine-independent way.

#include <src/main/decaf/io/DataInputStream.h> Inheritance diagram for decaf::io::DataInputStream:

### Public Member Functions

- **DataInputStream** (**InputStream** \*inputStream, bool own=false)  
*Creates a **DataInputStream** (p. 1379) that uses the specified underlying **InputStream** (p. 1740).*
- virtual ~**DataInputStream** ()
- virtual int **read** () throw ( **IOException** )  
*Reads the next byte of data from this input stream.*
- virtual int **read** (std::vector< unsigned char > &buffer) throw ( **io::IOException** )  
*Reads some number of bytes from the contained input stream and stores them into the buffer array b.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( **io::IOException**, **lang::exceptions::NullPointerException** )  
*Reads up to len bytes of data from the contained input stream into an array of bytes.*
- virtual bool **readBoolean** () throw ( **io::IOException**, **io::EOFException** )  
*Reads one input byte and returns true if that byte is nonzero, false if that byte is zero.*
- virtual char **readByte** () throw ( **io::IOException**, **io::EOFException** )  
*Reads and returns one input byte.*
- virtual unsigned char **readUnsignedByte** () throw ( **io::IOException**, **io::EOFException** )  
*Reads one input byte, zero-extends it to type int, and returns the result, which is therefore in the range 0 through 255.*
- virtual char **readChar** () throw ( **io::IOException**, **io::EOFException** )  
*Reads an input char and returns the char value.*
- virtual double **readDouble** () throw ( **io::IOException**, **io::EOFException** )  
*Reads eight input bytes and returns a double value.*
- virtual float **readFloat** () throw ( **io::IOException**, **io::EOFException** )  
*Reads four input bytes and returns a float value.*
- virtual int **readInt** () throw ( **io::IOException**, **io::EOFException** )  
*Reads four input bytes and returns an int value.*

- virtual long long **readLong** () throw ( io::IOException, io::EOFException )  
*Reads eight input bytes and returns a long value.*
- virtual short **readShort** () throw ( io::IOException, io::EOFException )  
*Reads two input bytes and returns a short value.*
- virtual unsigned short **readUnsignedShort** () throw ( io::IOException, io::EOFException )  
*Reads two input bytes and returns an int value in the range 0 through 65535.*
- virtual std::string **readString** () throw ( io::IOException, io::EOFException )  
*Reads an null terminated ASCII string to the stream and returns the string to the caller.*
- virtual std::string **readUTF** () throw ( io::IOException, io::EOFException, io::UTFDataFormatException )  
*Reads a modified UTF-8 encoded string in ASCII format and returns it, this is only useful if you know for sure that the string that is to be read was a string that contained all ASCII values (0-255), if so this method will throw a UTFFormatException.*
- virtual void **readFully** (std::vector< unsigned char > &buffer) throw ( io::IOException, io::EOFException )  
*Reads some bytes from an input stream and stores them into the buffer array buffer.*
- virtual void **readFully** (unsigned char \*buffer, std::size\_t offset, std::size\_t length) throw ( io::IOException, io::EOFException, lang::exceptions::NullPointerException )  
*Reads length bytes from an input stream.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Makes an attempt to skip over n bytes of data from the input stream, discarding the skipped bytes.*

### 6.255.1 Detailed Description

A data input stream lets an application read primitive Java data types from an underlying input stream in a machine-independent way. An application uses a data output stream to write data that can later be read by a data input stream.

Due to the lack of garbage collection in C++ a design decision was made to add a boolean parameter to the constructor indicating if the wrapped **InputStream** (p. 1740) is owned by this object. That way creation of the underlying stream can occur in a Java like way. Ex:

```
DataInputStream (p. 1379) os = new DataInputStream (p. 1379)( new InputStream(), true )
```

Since:

1.0

## 6.255.2 Constructor & Destructor Documentation

### 6.255.2.1 decaf::io::DataInputStream::DataInputStream (InputStream \* *inputStream*, bool *own* = false)

Creates a **DataInputStream** (p. 1379) that uses the specified underlying **InputStream** (p. 1740).

#### Parameters:

*inputStream* the **InputStream** (p. 1740) instance to wrap.

*own* indicates if this class owns the wrapped string defaults to false.

### 6.255.2.2 virtual decaf::io::DataInputStream::~~DataInputStream () [virtual]

## 6.255.3 Member Function Documentation

### 6.255.3.1 virtual int decaf::io::DataInputStream::read (unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( io::IOException, lang::exceptions::NullPointerException ) [virtual]

Reads up to len bytes of data from the contained input stream into an array of bytes. An attempt is made to read as many as len bytes, but a smaller number may be read, possibly zero. The number of bytes actually read is returned as an integer.

This method blocks until input data is available, end of file is detected, or an exception is thrown.

If buffer is null, a NullPointerException is thrown.

If off is negative, or len is negative then an IndexOutOfBoundsException is thrown, if off + len is greater than the allocated length of the array, an **IOException** (p. 1820) will result depending on the platform and compiler settings.

If len is zero, then no bytes are read and 0 is returned; otherwise, there is an attempt to read at least one byte. If no byte is available because the stream is at end of file, the value -1 is returned; otherwise, at least one byte is read and stored into buffer.

The first byte read is stored into element b[off], the next one into buffer[off+1], and so on. The number of bytes read is, at most, equal to len. Let k be the number of bytes actually read; these bytes will be stored in elements buffer[off] through buffer[off+k-1], leaving elements buffer[off+k] through buffer[off+len-1] unaffected.

In every case, elements buffer[0] through buffer[off] and elements buffer[off+len] through buffer[buffer.length-1] are unaffected.

If the first byte cannot be read for any reason other than end of file, then an **IOException** (p. 1820) is thrown. In particular, an **IOException** (p. 1820) is thrown if the input stream has been closed.

#### Parameters:

*buffer* - byte array to insert read data into

*offset* - location in buffer to start writing

*length* - number of bytes to read

#### Returns:

the total number of bytes read, or -1 if there is no more data because the stream is EOF.

**Exceptions:*****IOException*** (p. 1820)***NullPointerException*** if the buffer is nullReimplemented from **decaf::io::FilterInputStream** (p.1635).

**6.255.3.2** `virtual int decaf::io::DataInputStream::read (std::vector< unsigned char  
> & buffer) throw ( io::IOException )` [virtual]

Reads some number of bytes from the contained input stream and stores them into the buffer array b. The number of bytes actually read is returned as an integer. This method blocks until input data is available, end of file is detected, or an exception is thrown.

If the length of buffer is zero, then no bytes are read and 0 is returned; otherwise, there is an attempt to read at least one byte. If no byte is available because the stream is at end of file, the value -1 is returned; otherwise, at least one byte is read and stored into buffer.

The first byte read is stored into element buffer[0], the next one into buffer[1], and so on. The number of bytes read is, at most, equal to the length of buffer. Let k be the number of bytes actually read; these bytes will be stored in elements b[0] through b[k-1], leaving elements buffer[k] through buffer[buffer.length-1] unaffected.

If the first byte cannot be read for any reason other than end of file, then an **IOException** (p.1820) is thrown. In particular, an **IOException** (p.1820) is thrown if the input stream has been closed.

The read( buffer ) method has the same effect as: read( buffer, 0, b.length )

**Parameters:**

*buffer* - byte array to insert read data into

**Returns:**

the total number of bytes read, or -1 if there is no more data because the stream is EOF.

**Exceptions:*****IOException*** (p. 1820)

**6.255.3.3** `virtual int decaf::io::DataInputStream::read () throw ( IOException )`  
[inline, virtual]

Reads the next byte of data from this input stream. The value byte is returned as an unsigned char in the range 0 to 255. If no byte is available because the end of the stream has been reached, the value -1 is returned. This method blocks until input data is available, the end of the stream is detected, or an exception is thrown. This method simply performs in.read() and returns the result.

**Returns:**

The next byte.

**Exceptions:*****IOException*** (p. 1820) thrown if an error occurs.



Reimplemented from **decaf::io::FilterInputStream** (p. 1636).

References **decaf::io::FilterInputStream::read()**.

#### 6.255.3.4 virtual bool decaf::io::DataInputStream::readBoolean () throw (io::IOException, io::EOFException) [virtual]

Reads one input byte and returns true if that byte is nonzero, false if that byte is zero.

##### Returns:

the boolean value read.

##### Exceptions:

*IOException* (p. 1820)

*EOFException* (p. 1571)

#### 6.255.3.5 virtual char decaf::io::DataInputStream::readByte () throw (io::IOException, io::EOFException) [virtual]

Reads and returns one input byte. The byte is treated as a signed value in the range -128 through 127, inclusive.

##### Returns:

the 8-bit value read.

##### Exceptions:

*IOException* (p. 1820)

*EOFException* (p. 1571)

#### 6.255.3.6 virtual char decaf::io::DataInputStream::readChar () throw (io::IOException, io::EOFException) [virtual]

Reads an input char and returns the char value. A ascii char is made up of one bytes. This returns the same result as **readByte**

##### Returns:

the 8 bit char read

##### Exceptions:

*IOException* (p. 1820)

*EOFException* (p. 1571)

### 6.255.3.7 virtual double decaf::io::DataInputStream::readDouble () throw ( io::IOException, io::EOFException ) [virtual]

Reads eight input bytes and returns a double value. It does this by first constructing a long long value in exactly the manner of the readlong method, then converting this long value to a double in exactly the manner of the method Double.longBitsToDouble.

#### Returns:

the double value read

#### Exceptions:

*IOException* (p. 1820)

*EOFException* (p. 1571)

### 6.255.3.8 virtual float decaf::io::DataInputStream::readFloat () throw ( io::IOException, io::EOFException ) [virtual]

Reads four input bytes and returns a float value. It does this by first constructing an int value in exactly the manner of the readInt method, then converting this int value to a float in exactly the manner of the method Float.intBitsToFloat.

#### Returns:

the float value read

#### Exceptions:

*IOException* (p. 1820)

*EOFException* (p. 1571)

### 6.255.3.9 virtual void decaf::io::DataInputStream::readFully (unsigned char \* buffer, std::size\_t offset, std::size\_t length) throw ( io::IOException, io::EOFException, lang::exceptions::NullPointerException ) [virtual]

Reads length bytes from an input stream. This method blocks until one of the following conditions occurs: \* length bytes of input data are available, in which case a normal return is made. \* End of file is detected, in which case an **EOFException** (p. 1571) is thrown. \* An I/O error occurs, in which case an **IOException** (p. 1820) other than **EOFException** (p. 1571) is thrown.

If buffer is null, a NullPointerException is thrown. If offset is negative, or len is negative, or offset+length is greater than the length of the array buffer, then an IndexOutOfBoundsException is thrown. If len is zero, then no bytes are read. Otherwise, the first byte read is stored into element buffer[offset], the next one into buffer[offset+1], and so on. The number of bytes read is, at most, equal to len.

#### Parameters:

*buffer* - byte array to insert read data into

*offset* - location in buffer to start writing

*length* - number of bytes to read

**Exceptions:*****IOException*** (p. 1820)***EOFException*** (p. 1571)***NullPointerException*** if the buffer is null

**6.255.3.10** `virtual void decaf::io::DataInputStream::readFully (std::vector< unsigned char > & buffer) throw ( io::IOException, io::EOFException )` [virtual]

Reads some bytes from an input stream and stores them into the buffer array *buffer*. The number of bytes read is equal to the length of *buffer*.

This method blocks until one of the following conditions occurs: \* *buffer.size()* bytes of input data are available, in which case a normal return is made. \* End of file is detected, in which case an **EOFException** (p. 1571) is thrown. \* An I/O error occurs, in which case an **IOException** (p. 1820) other than **EOFException** (p. 1571) is thrown.

If *buffer.size()* is zero, then no bytes are read. Otherwise, the first byte read is stored into element *b[0]*, the next one into *buffer[1]*, and so on. If an exception is thrown from this method, then it may be that some but not all bytes of *buffer* have been updated with data from the input stream.

**Parameters:*****buffer*** - vector of char that is read to its size()**Exceptions:*****IOException*** (p. 1820)***EOFException*** (p. 1571)

**6.255.3.11** `virtual int decaf::io::DataInputStream::readInt () throw ( io::IOException, io::EOFException )` [virtual]

Reads four input bytes and returns an int value. Let *a* be the first byte read, *b* be the second byte, *c* be the third byte, and *d* be the fourth byte. The value returned is:

$$(((a \& 0xff) << 24) | ((b \& 0xff) << 16) | ((c \& 0xff) << 8) | (d \& 0xff))$$
**Returns:**

the int value read

**Exceptions:*****IOException*** (p. 1820)***EOFException*** (p. 1571)

**6.255.3.12** `virtual long long decaf::io::DataInputStream::readLong () throw ( io::IOException, io::EOFException )` [virtual]

Reads eight input bytes and returns a long value. Let *a* be the first byte read, *b* be the second byte, *c* be the third byte, *d* be the fourth byte, *e* be the fifth byte, *f* be the sixth byte, *g* be

the seventh byte, and h be the eighth byte. The value returned is:  $((\text{long})(a \& 0\text{xff}) \ll 56) | ((\text{long})(b \& 0\text{xff}) \ll 48) | ((\text{long})(c \& 0\text{xff}) \ll 40) | ((\text{long})(d \& 0\text{xff}) \ll 32) | ((\text{long})(e \& 0\text{xff}) \ll 24) | ((\text{long})(f \& 0\text{xff}) \ll 16) | ((\text{long})(g \& 0\text{xff}) \ll 8) | ((\text{long})(h \& 0\text{xff}))$

**Returns:**

the 64 bit long long read

**Exceptions:**

*IOException* (p. 1820)

*EOFException* (p. 1571)

**6.255.3.13 virtual short decaf::io::DataInputStream::readShort () throw ( io::IOException, io::EOFException ) [virtual]**

Reads two input bytes and returns a short value. Let a be the first byte read and b be the second byte. The value returned is:  $(\text{short})((a \ll 8) | (b \& 0\text{xff}))$

**Returns:**

the 16 bit short value read

**Exceptions:**

*IOException* (p. 1820)

*EOFException* (p. 1571)

**6.255.3.14 virtual std::string decaf::io::DataInputStream::readString () throw ( io::IOException, io::EOFException ) [virtual]**

Reads an null terminated ASCII string to the stream and returns the string to the caller.

**Returns:**

string object containing the string read.

**Exceptions:**

*IOException* (p. 1820)

*EOFException* (p. 1571)

**6.255.3.15 virtual unsigned char decaf::io::DataInputStream::readUnsignedByte () throw ( io::IOException, io::EOFException ) [virtual]**

Reads one input byte, zero-extends it to type int, and returns the result, which is therefore in the range 0 through 255.

**Returns:**

the 8 bit unsigned value read

**Exceptions:***IOException* (p. 1820)*EOFException* (p. 1571)**6.255.3.16 virtual unsigned short decaf::io::DataInputStream::readUnsignedShort () throw ( io::IOException, io::EOFException ) [virtual]**

Reads two input bytes and returns an int value in the range 0 through 65535. Let a be the first byte read and b be the second byte. The value returned is:  $((a \& 0xff) << 8) | (b \& 0xff)$

**Returns:**

the 16 bit unsigned short read

**Exceptions:***IOException* (p. 1820)*EOFException* (p. 1571)**6.255.3.17 virtual std::string decaf::io::DataInputStream::readUTF () throw ( io::IOException, io::EOFException, io::UTFDataFormatException ) [virtual]**

Reads a modified UTF-8 encoded string in ASCII format and returns it, this is only useful if you know for sure that the string that is to be read was a string that contained all ASCII values (0-255), if so this method will throw a UTFFormatException. This method reads String value written from a Java **DataOutputStream** (p. 1388) and assumes that the length prefix the precedes the encoded UTF-8 bytes is an unsigned short, which implies that the String will be no longer than 65535 characters.

**Returns:**

The decoded string read from stream.

**Exceptions:***IOException* (p. 1820)*EOFException* (p. 1571)*UTFDataFormatException* (p. 3353)**6.255.3.18 virtual std::size\_t decaf::io::DataInputStream::skip (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException ) [virtual]**

Makes an attempt to skip over n bytes of data from the input stream, discarding the skipped bytes. However, it may skip over some smaller number of bytes, possibly zero. This may result from any of a number of conditions; reaching end of file before n bytes have been skipped is only one possibility. This method never throws an **EOFException** (p. 1571). The actual number of bytes skipped is returned.

**Parameters:**

*num* - number of bytes to skip

**Returns:**

the total number of bytes skipped

Reimplemented from **decaf::io::FilterInputStream** (p. 1637).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/DataInputStream.h`

## 6.256 decaf::io::DataOutputStream Class Reference

A data output stream lets an application write primitive Java data types to an output stream in a portable way.

#include <src/main/decaf/io/DataOutputStream.h> Inheritance diagram for decaf::io::DataOutputStream:

### Public Member Functions

- **DataOutputStream** (**OutputStream** \***outputStream**, bool **own**=false)  
*Creates a new data output stream to write data to the specified underlying output stream.*
- virtual ~**DataOutputStream** ()
- virtual std::size\_t **size** () const  
*Returns the current value of the counter written, the number of bytes written to this data output stream so far.*
- virtual void **write** (unsigned char **c**) throw ( **IOException** )  
*Writes a single byte to the output stream.*
- virtual void **write** (const unsigned char \***buffer**, std::size\_t **offset**, std::size\_t **len**) throw ( **IOException**, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &**buffer**) throw ( **IOException** )  
*Writes an array of bytes to the output stream.*
- virtual void **writeBoolean** (bool **value**) throw ( **IOException** )  
*Writes a boolean to the underlying output stream as a 1-byte value.*
- virtual void **writeByte** (unsigned char **value**) throw ( **IOException** )  
*Writes out a byte to the underlying output stream as a 1-byte value.*
- virtual void **writeShort** (short **value**) throw ( **IOException** )  
*Writes a short to the underlying output stream as two bytes, high byte first.*
- virtual void **writeUnsignedShort** (unsigned short **value**) throw ( **IOException** )  
*Writes a unsigned short to the bytes message stream as a 2 byte value.*
- virtual void **writeChar** (char **value**) throw ( **IOException** )  
*Writes out a char to the underlying output stream as a one byte value If no exception is thrown, the counter written is incremented by 1.*
- virtual void **writeInt** (int **value**) throw ( **IOException** )  
*Writes an int to the underlying output stream as four bytes, high byte first.*
- virtual void **writeLong** (long long **value**) throw ( **IOException** )  
*Writes an 64 bit long to the underlying output stream as eight bytes, high byte first.*

- virtual void **writeFloat** (float value) throw ( IOException )

*Converts the float argument to an int using the floatToIntBits method in class Float, and then writes that int value to the underlying output stream as a 4-byte quantity, high byte first.*

- virtual void **writeDouble** (double value) throw ( IOException )

*Converts the double argument to a long using the doubleToLongBits method in class Double, and then writes that long value to the underlying output stream as an 8-byte quantity, high byte first.*

- virtual void **writeBytes** (const std::string &value) throw ( IOException )

*Writes out the string to the underlying output stream as a sequence of bytes.*

- virtual void **writeChars** (const std::string &value) throw ( IOException )

*Writes a string to the underlying output stream as a sequence of characters.*

- virtual void **writeUTF** (const std::string &value) throw ( IOException, UTFDataFormatException )

*Writes out the string to the underlying output stream as a modified UTF-8 encoded sequence of bytes.*

## Protected Attributes

- std::size\_t **written**
- unsigned char **buffer** [8]

### 6.256.1 Detailed Description

A data output stream lets an application write primitive Java data types to an output stream in a portable way. An application can then use a data input stream to read the data back in.

### 6.256.2 Constructor & Destructor Documentation

#### 6.256.2.1 decaf::io::DataOutputStream::DataOutputStream (OutputStream \* *outputStream*, bool *own* = false)

Creates a new data output stream to write data to the specified underlying output stream.

#### Parameters:

*outputStream* a stream to wrap with this one.

*own* true if this objects owns the stream that it wraps.



**6.256.2.2** virtual decaf::io::DataOutputStream::~~DataOutputStream () [virtual]

## 6.256.3 Member Function Documentation

**6.256.3.1** virtual std::size\_t decaf::io::DataOutputStream::size () const [inline, virtual]

Returns the current value of the counter written, the number of bytes written to this data output stream so far. If the counter overflows, it will be wrapped to Integer.MAX\_VALUE.

### Returns:

the value of the written field.

**6.256.3.2** virtual void decaf::io::DataOutputStream::write (const std::vector< unsigned char > & *buffer*) throw ( IOException ) [virtual]

Writes an array of bytes to the output stream.

### Parameters:

*buffer* The bytes to write.

### Exceptions:

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from decaf::io::FilterOutputStream (p. 1646).

**6.256.3.3** virtual void decaf::io::DataOutputStream::write (const unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *len*) throw ( IOException, lang::exceptions::NullPointerException ) [virtual]

Writes an array of bytes to the output stream. the counter written is incremented by len.

### Parameters:

*buffer* The array of bytes to write.

*offset* the position in buffer to start writing from.

*len* The number of bytes from the buffer to be written.

### Exceptions:

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* if buffer is Null

Reimplemented from decaf::io::FilterOutputStream (p. 1645).

**6.256.3.4** virtual void decaf::io::DataOutputStream::write (unsigned char *c*) throw ( IOException ) [virtual]

Writes a single byte to the output stream. If no exception is thrown, the counter written is incremented by 1.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1646).

**6.256.3.5 virtual void decaf::io::DataOutputStream::writeBoolean (bool *value*) throw ( IOException ) [virtual]**

Writes a boolean to the underlying output stream as a 1-byte value. The value true is written out as the value (byte)1; the value false is written out as the value (byte)0. If no exception is thrown, the counter written is incremented by 1.

**Parameters:**

*value* the boolean to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.6 virtual void decaf::io::DataOutputStream::writeByte (unsigned char *value*) throw ( IOException ) [virtual]**

Writes out a byte to the underlying output stream as a 1-byte value. If no exception is thrown, the counter written is incremented by 1.

**Parameters:**

*value* the unsigned char value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.7 virtual void decaf::io::DataOutputStream::writeBytes (const std::string & *value*) throw ( IOException ) [virtual]**

Writes out the string to the underlying output stream as a sequence of bytes. Each character in the string is written out, in sequence, by discarding its high eight bits. If no exception is thrown, the counter written is incremented by the length of value. The value written does not include a trailing null as that is not part of the sequence of bytes, if the null is needed, then use the writeChars method.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.8 virtual void decaf::io::DataOutputStream::writeChar (char *value*) throw (IOException) [virtual]**

Writes out a char to the underlying output stream as a one byte value. If no exception is thrown, the counter written is incremented by 1.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.9 virtual void decaf::io::DataOutputStream::writeChars (const std::string & *value*) throw (IOException) [virtual]**

Writes a string to the underlying output stream as a sequence of characters. Each character is written to the data output stream as if by the writeChar method. If no exception is thrown, the counter written is incremented by the length of value. The trailing NULL character is written by this method.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.10 virtual void decaf::io::DataOutputStream::writeDouble (double *value*) throw (IOException) [virtual]**

Converts the double argument to a long using the doubleToLongBits method in class Double, and then writes that long value to the underlying output stream as an 8-byte quantity, high byte first. If no exception is thrown, the counter written is incremented by 8.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.11 virtual void decaf::io::DataOutputStream::writeFloat (float *value*) throw (IOException) [virtual]**

Converts the float argument to an int using the floatToIntBits method in class Float, and then writes that int value to the underlying output stream as a 4-byte quantity, high byte first. If no exception is thrown, the counter written is incremented by 4.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.12** `virtual void decaf::io::DataOutputStream::writeInt (int value) throw (IOException ) [virtual]`

Writes an int to the underlying output stream as four bytes, high byte first. If no exception is thrown, the counter written is incremented by 4.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.13** `virtual void decaf::io::DataOutputStream::writeLong (long long value) throw ( IOException ) [virtual]`

Writes an 64 bit long to the underlying output stream as eight bytes, high byte first. If no exception is thrown, the counter written is incremented by 8.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.14** `virtual void decaf::io::DataOutputStream::writeShort (short value) throw ( IOException ) [virtual]`

Writes a short to the underlying output stream as two bytes, high byte first. If no exception is thrown, the counter written is incremented by 2.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.15** virtual void decaf::io::DataOutputStream::writeUnsignedShort  
(unsigned short *value*) throw ( IOException ) [virtual]

Writes a unsigned short to the bytes message stream as a 2 byte value.

**Parameters:**

*value* - unsigned short to write to the stream

**Exceptions:**

*IOException* (p. 1820)

**6.256.3.16** virtual void decaf::io::DataOutputStream::writeUTF (const std::string  
& *value*) throw ( IOException, UTFDataFormatException ) [virtual]

Writes out the string to the underlying output stream as a modeified UTF-8 encoded sequence of bytes. The first two bytes written are indicate its encoded length followed by the rest of the string's characters encoded as modified UTF-8. The length represent the encoded length of the data not the actual length of the string.

**Parameters:**

*value* the value to write.

**Exceptions:**

*IOException* (p. 1820) - on a write error

*UTFDataFormatException* (p. 3353) - if encoded size if greater than 65535

**6.256.4 Field Documentation****6.256.4.1** unsigned char decaf::io::DataOutputStream::buffer[8] [protected]**6.256.4.2** std::size\_t decaf::io::DataOutputStream::written [protected]

The documentation for this class was generated from the following file:

- src/main/decaf/io/**DataOutputStream.h**

## 6.257 activemq::commands::DataResponse Class Reference

#include <src/main/activemq/commands/DataResponse.h> Inheritance diagram for activemq::commands::DataResponse:

### Public Member Functions

- **DataResponse** ()
- virtual **~DataResponse** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **DataResponse \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **DataStructure** > & **getData** () const
- virtual **Pointer**< **DataStructure** > & **getData** ()
- virtual void **setData** (const **Pointer**< **DataStructure** > &data)

### Static Public Attributes

- static const unsigned char **ID\_DATARESPONSE** = 32

### Protected Member Functions

- **DataResponse** (const **DataResponse** &)
- **DataResponse** & **operator=** (const **DataResponse** &)

### Protected Attributes

- **Pointer**< **DataStructure** > **data**

## 6.257.1 Constructor & Destructor Documentation

**6.257.1.1** `activemq::commands::DataResponse::DataResponse (const DataResponse &) [inline, protected]`

**6.257.1.2** `activemq::commands::DataResponse::DataResponse ()`

**6.257.1.3** `virtual activemq::commands::DataResponse::~~DataResponse () [virtual]`

## 6.257.2 Member Function Documentation

**6.257.2.1** `virtual DataResponse* activemq::commands::DataResponse::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.257.2.2** `virtual void activemq::commands::DataResponse::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.257.2.3** `virtual bool activemq::commands::DataResponse::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::Response` (p. 2782).

- 6.257.2.4 `virtual Pointer<DataStructure>& activemq::commands::DataResponse::getData ()`  
[virtual]
- 6.257.2.5 `virtual const Pointer<DataStructure>& activemq::commands::DataResponse::getData () const`  
[virtual]
- 6.257.2.6 `virtual unsigned char activemq::commands::DataResponse::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::Response** (p. 2783).

- 6.257.2.7 `DataResponse& activemq::commands::DataResponse::operator= (const DataResponse &)` [inline, protected]
- 6.257.2.8 `virtual void activemq::commands::DataResponse::setData (const Pointer< DataStructure > & data)` [virtual]
- 6.257.2.9 `virtual std::string activemq::commands::DataResponse::toString () const`  
[virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Response** (p. 2783).

## 6.257.3 Field Documentation

- 6.257.3.1 `Pointer<DataStructure> activemq::commands::DataResponse::data`  
[protected]
- 6.257.3.2 `const unsigned char activemq::commands::DataResponse::ID_ - DATARESPONSE = 32` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/DataResponse.h`



## 6.258 activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1398).

#include <src/main/activemq/wireformat/openwire/marshal/v3/DataResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller:

### Public Member Functions

- **DataResponseMarshaller** ()
- virtual **~DataResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.258.1 Detailed Description

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1398). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.258.2 Constructor & Destructor Documentation

**6.258.2.1** `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::DataResponseMar  
( ) [inline]`

**6.258.2.2** `virtual  
activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::~~DataResponseM  
( ) [inline, virtual]`

## 6.258.3 Member Function Documentation

**6.258.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.258.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.258.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::looseMarshal  
( OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (   
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.258.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.258.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.258.3.6** virtual void activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2799).

**6.258.3.7** virtual void activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2800).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**DataResponseMarshaller.h**

## 6.259 activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1402).

#include <src/main/activemq/wireformat/openwire/marshal/v1/DataResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller:

### Public Member Functions

- **DataResponseMarshaller** ()
- virtual **~DataResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.259.1 Detailed Description

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1402). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.259.2 Constructor & Destructor Documentation

**6.259.2.1** `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::DataResponseMarshaller()` [inline]

**6.259.2.2** `virtual activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::~DataResponseMarshaller()` [inline, virtual]

## 6.259.3 Member Function Documentation

**6.259.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.259.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.259.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2807).

**6.259.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2808).

**6.259.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2808).

**6.259.3.6** virtual void activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2809).

**6.259.3.7** virtual void activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2810).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**DataResponseMarshaller.h**



## 6.260 activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1406).

#include <src/main/activemq/wireformat/openwire/marshal/v5/DataResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller:

### Public Member Functions

- **DataResponseMarshaller** ()
- virtual **~DataResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.260.1 Detailed Description

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1406). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.260.2 Constructor & Destructor Documentation

**6.260.2.1** `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::DataResponseMar  
( ) [inline]`

**6.260.2.2** `virtual  
activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::~~DataResponseM  
( ) [inline, virtual]`

## 6.260.3 Member Function Documentation

**6.260.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.260.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.260.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::looseMarshal  
( OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (   
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2802).

**6.260.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2803).

**6.260.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2803).

**6.260.3.6** virtual void activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2804).

**6.260.3.7** virtual void activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2805).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**DataResponseMarshaller.h**

## 6.261 activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1410).

#include <src/main/activemq/wireformat/openwire/marshal/v4/DataResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller:

### Public Member Functions

- **DataResponseMarshaller** ()
- virtual **~DataResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.261.1 Detailed Description

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1410). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.261.2 Constructor & Destructor Documentation

**6.261.2.1** `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::DataResponseMarshaller()` [inline]

**6.261.2.2** `virtual activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::~~DataResponseMarshaller()` [inline, virtual]

## 6.261.3 Member Function Documentation

**6.261.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.261.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.261.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.261.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.261.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.261.3.6** virtual void activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2814).

**6.261.3.7** virtual void activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2815).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**DataResponseMarshaller.h**



## 6.262 activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1414).

#include <src/main/activemq/wireformat/openwire/marshal/v2/DataResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller:

### Public Member Functions

- **DataResponseMarshaller** ()
- virtual **~DataResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.262.1 Detailed Description

Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1414). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.262.2 Constructor & Destructor Documentation

**6.262.2.1** `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::DataResponseMarshaller()` [inline]

**6.262.2.2** `virtual activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::~~DataResponseMarshaller()` [inline, virtual]

## 6.262.3 Member Function Documentation

**6.262.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.262.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaller.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.262.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.262.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.262.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.262.3.6** virtual void activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2794).

**6.262.3.7** virtual void activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2795).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**DataResponseMarshaller.h**

## 6.263 activemq::wireformat::openwire::marshal::DataStreamMarshaller Class Reference

Base class for all classes that marshal commands for Openwire.

#include <src/main/activemq/wireformat/openwire/marshal/DataStreamMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::DataStreamMarshaller:

### Public Member Functions

- virtual `~DataStreamMarshaller ()`
- virtual unsigned char `getDataStructureType ()` const =0  
*Gets the DataStructureType that this class marshals/unmarshals.*
- virtual `commands::DataStructure * createObject ()` const =0  
*Creates a new instance of the class that this class is a marshaling director for.*
- virtual int `tightMarshal (OpenWireFormat *format, commands::DataStructure *command, utils::BooleanStream *bs)=0` throw ( decaf::io::IOException )  
*Tight Marhsal to the given stream.*
- virtual void `tightMarshal2 (OpenWireFormat *format, commands::DataStructure *command, decaf::io::DataOutputStream *ds, utils::BooleanStream *bs)=0` throw ( decaf::io::IOException )  
*Tight Marhsal to the given stream.*
- virtual void `tightUnmarshal (OpenWireFormat *format, commands::DataStructure *command, decaf::io::DataInputStream *dis, utils::BooleanStream *bs)=0` throw ( decaf::io::IOException )  
*Tight Un-marhsal to the given stream.*
- virtual void `looseMarshal (OpenWireFormat *format, commands::DataStructure *command, decaf::io::DataOutputStream *ds)=0` throw ( decaf::io::IOException )  
*Tight Marhsal to the given stream.*
- virtual void `looseUnmarshal (OpenWireFormat *format, commands::DataStructure *command, decaf::io::DataInputStream *dis)=0` throw ( decaf::io::IOException )  
*Loose Un-marhsal to the given stream.*

### 6.263.1 Detailed Description

Base class for all classes that marshal commands for Openwire.

## 6.263.2 Constructor & Destructor Documentation

**6.263.2.1** `virtual`  
`activemq::wireformat::openwire::marshal::DataStreamMarshaller::~~DataStreamMarshaller`  
`() [inline, virtual]`

## 6.263.3 Member Function Documentation

**6.263.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::DataStreamMarshaller::createObject`  
`() const [pure virtual]`

Creates a new instance of the class that this class is a marshaling director for.

### Returns:

newly allocated Command

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 activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller (p. 3384), and  
 activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller (p. 3432).

### 6.263.3.2 virtual unsigned char ac-

tivemq::wireformat::openwire::marshal::DataStreamMarshaller::getDataStructureType  
 () const [pure virtual]

Gets the DataStructureType that this class marshals/unmarshals.

#### Returns:

byte Id of this classes DataStructureType

Implemented in activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller  
 (p. 182), activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller  
 (p. 218), activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller  
 (p. 327), activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller  
 (p. 350), activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller  
 (p. 391), activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller  
 (p. 428), activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller  
 (p. 484), activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller  
 (p. 533), activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller  
 (p. 558), activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller  
 (p. 583), activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller  
 (p. 607), activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller (p. 760),  
 activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller (p. 788),  
 activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller (p. 1145),  
 activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller (p. 1169),

activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller (p. 1196),  
 activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller (p. 1226),  
 activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1264),  
 activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller (p. 1289),  
 activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1314),  
 activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1343),  
 activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1368),  
 activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1403),  
 activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1502),  
 activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller (p. 1532),  
 activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1590),  
 activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1684),  
 activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1785),  
 activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller (p. 1851),  
 activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller (p. 1868),  
 activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller (p. 1899),  
 activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller (p. 1923),  
 activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller (p. 1950),  
 activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller  
 (p. 1966), activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller  
 (p. 2010), activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller  
 (p. 2211), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller  
 (p. 2244), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2270), activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller (p. 2301),  
 activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2360),  
 activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller (p. 2410),  
 activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller (p. 2490),  
 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2600),  
 activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller (p. 2624),  
 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2653),  
 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2708),  
 activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller  
 (p. 2741), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2773), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2807),  
 activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller (p. 2862),  
 activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller (p. 2886),  
 activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller (p. 2938),  
 activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller (p. 3103),  
 activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller (p. 3254),  
 activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller (p. 3388),  
 activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller (p. 3428),  
 activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller  
 (p. 194), activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller  
 (p. 230), activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller  
 (p. 339), activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller  
 (p. 362), activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller  
 (p. 403), activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller  
 (p. 440), activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller  
 (p. 496), activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller  
 (p. 545), activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller  
 (p. 570), activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller  
 (p. 595), activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller  
 (p. 619), activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller (p. 772),  
 activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller (p. 800), ac-

tivemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller (p. 1157),  
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 activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller (p. 1208),  
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 activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller (p. 1272),  
 activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller (p. 1297),  
 activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller (p. 1326), ac-  
 tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller (p. 1351), ac-  
 tivemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller (p. 1376),  
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 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller (p. 1490),  
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 tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1586),  
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 activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller (p. 1864),  
 activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller (p. 1887), ac-  
 tivemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller (p. 1911),  
 activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller (p. 1934),  
 activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller  
 (p. 1962), activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller  
 (p. 1998),       activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller  
 (p. 2195),       activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller  
 (p. 2232), activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller  
 (p. 2258), activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller (p. 2285),  
 activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller (p. 2352), ac-  
 tivemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller (p. 2398),  
 activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller (p. 2478),  
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 activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller (p. 2637),  
 activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller (p. 2716), ac-  
 tivemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller  
 (p. 2737),       activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller  
 (p. 2757), activemq::wireformat::openwire::marshal::v2::ResponseMarshaller (p. 2792),  
 activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller (p. 2866), ac-  
 tivemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller (p. 2882), ac-  
 tivemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller (p. 2950), ac-  
 tivemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller (p. 3119),  
 activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller (p. 3262),  
 activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller (p. 3380),  
 activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller (p. 3416),  
 activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller  
 (p. 178), activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller  
 (p. 214), activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller  
 (p. 323),       activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller  
 (p. 346), activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller  
 (p. 387),       activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller  
 (p. 424), activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller  
 (p. 480), activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller  
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 (p. 554), activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller  
 (p. 579),       activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller

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`activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller` (p. 784), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller` (p. 1141),  
`activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller` (p. 1165),  
`activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller` (p. 1192),  
`activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller` (p. 1218),  
`activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller` (p. 1256),  
`activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller` (p. 1281),  
`activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller` (p. 1310), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller` (p. 1335), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1360),  
`activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1399),  
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`activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller` (p. 1520), `ac-`  
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`activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller` (p. 1688),  
`activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1789),  
`activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller` (p. 1847),  
`activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller` (p. 1872),  
`activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller` (p. 1895), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller` (p. 1915),  
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`activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller`  
(p. 1970), `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller`  
(p. 2002), `activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller`  
(p. 2203), `activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller`  
(p. 2240), `activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller`  
(p. 2266), `activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller` (p. 2293),  
`activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller` (p. 2356), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller` (p. 2402),  
`activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2482),  
`activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller` (p. 2588),  
`activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller` (p. 2616),  
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(p. 2745), `activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller`  
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`tivemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller` (p. 2946), `ac-`  
`tivemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller` (p. 3107),  
`activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller` (p. 3250),  
`activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller` (p. 3396),  
`activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3420),  
`activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller`  
(p. 186), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller`  
(p. 222), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller`  
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(p. 537), `activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller`

(p. 562), activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller (p. 587), activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller (p. 611), activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller (p. 764), activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller (p. 792), activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller (p. 1149), activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller (p. 1173), activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller (p. 1200), activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller (p. 1222), activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller (p. 1260), activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller (p. 1285), activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller (p. 1318), activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller (p. 1339), activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller (p. 1364), activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller (p. 1411), activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller (p. 1498), activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller (p. 1524), activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller (p. 1598), activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller (p. 1692), activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller (p. 1793), activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller (p. 1843), activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller (p. 1876), activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller (p. 1891), activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller (p. 1919), activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller (p. 1946), activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller (p. 1974), activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller (p. 2006), activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller (p. 2207), activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller (p. 2236), activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller (p. 2262), activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller (p. 2289), activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller (p. 2368), activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller (p. 2414), activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller (p. 2486), activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller (p. 2592), activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller (p. 2628), activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller (p. 2649), activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller (p. 2724), activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller (p. 2749), activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller (p. 2769), activemq::wireformat::openwire::marshal::v4::ResponseMarshaller (p. 2812), activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller (p. 2870), activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller (p. 2890), activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller (p. 2942), activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller (p. 3115), activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller (p. 3258), activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller (p. 3392), activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller (p. 3424), activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller (p. 190), activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller (p. 226), activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller (p. 335), activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller (p. 358), activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller (p. 399), activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller (p. 436), activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller

(p. 492), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller` (p. 541), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller` (p. 566), `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 591), `activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller` (p. 615), `activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller` (p. 768), `activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller` (p. 796), `activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller` (p. 1153), `activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1177), `activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller` (p. 1204), `activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1230), `activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1268), `activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller` (p. 1293), `activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller` (p. 1322), `activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller` (p. 1347), `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407), `activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller` (p. 1506), `activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller` (p. 1528), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1602), `activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller` (p. 1696), `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797), `activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller` (p. 1855), `activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller` (p. 1880), `activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller` (p. 1903), `activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller` (p. 1927), `activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1938), `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller` (p. 1978), `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2014), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller` (p. 2199), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller` (p. 2248), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller` (p. 2274), `activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller` (p. 2297), `activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2364), `activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller` (p. 2406), `activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2494), `activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2596), `activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller` (p. 2620), `activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2645), `activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller` (p. 2712), `activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller` (p. 2733), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller` (p. 2765), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802), `activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller` (p. 2858), `activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller` (p. 2894), `activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2954), `activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller` (p. 3111), `activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3246), `activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3384), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3432).



**6.263.3.3** virtual void activemq::wireformat::openwire::marshal::DataStreamMarshaller::looseMarshal (OpenWireFormat \* *format*, commands::DataStructure \* *command*, decaf::io::DataOutputStream \* *ds*) throw ( decaf::io::IOException )  
[pure virtual]

Tight Marshal to the given stream.

**Parameters:**

*format* - The OpenWireFormat properties

*command* - the object to Marshal

*ds* - DataOutputStream to marshal to

**Exceptions:**

*IOException* if an error occurs.

Implemented in activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller (p. 182), activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller (p. 218), activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller (p. 290), activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller (p. 327), activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller (p. 350), activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller (p. 391), activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller (p. 428), activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller (p. 484), activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller (p. 508), activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller (p. 533), activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller (p. 558), activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller (p. 583), activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller (p. 607), activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller (p. 665), activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller (p. 760), activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller (p. 788), activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller (p. 1145), activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller (p. 1169), activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller (p. 1196), activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller (p. 1226), activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1264), activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller (p. 1289), activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1314), activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1343), activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1368), activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1403), activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1502), activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller (p. 1532), activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1590), activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1684), activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1785), activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller (p. 1851), activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller (p. 1868), activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller (p. 1899), activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller (p. 1923), activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller (p. 1950),

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 (p. 1966), activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller  
 (p. 2010), activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller  
 (p. 2211), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller  
 (p. 2244), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2270), activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller (p. 2301),  
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 (p. 2741), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2773), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2807),  
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 tivemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller (p. 2886), ac-  
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 (p. 194), activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller  
 (p. 230), activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller  
 (p. 302), activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller  
 (p. 339), activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller  
 (p. 362), activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller  
 (p. 403), activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller  
 (p. 440), activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller  
 (p. 496), activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller  
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 (p. 545), activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller  
 (p. 570), activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller  
 (p. 595), activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller  
 (p. 619), activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller  
 (p. 686), activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller (p. 772),  
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 tivemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller (p. 1157),  
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 tivemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller (p. 1376),  
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 tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1586),

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 (p. 1998), activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller  
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 (p. 178), activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller  
 (p. 214), activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller  
 (p. 286), activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller  
 (p. 323), activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller  
 (p. 346), activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller  
 (p. 387), activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller  
 (p. 424), activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller  
 (p. 480), activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller  
 (p. 504), activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller  
 (p. 529), activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller  
 (p. 554), activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller  
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 (p. 1970), activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller  
 (p. 2002), activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller  
 (p. 2203), activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller  
 (p. 2240), activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller  
 (p. 2266), activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller (p. 2293),  
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 (p. 186), activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller  
 (p. 222), activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller  
 (p. 294), activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller  
 (p. 331), activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller  
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 (p. 432), activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller  
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 (p. 537), activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller  
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 (p. 587), activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller  
 (p. 611), activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller  
 (p. 672), activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller (p. 764),

activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller (p. 792),  
 activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller (p. 1149),  
 activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller (p. 1173),  
 activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller (p. 1200),  
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 activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller (p. 1339),  
 activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller (p. 1364),  
 activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller (p. 1411),  
 activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller (p. 1498),  
 activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller (p. 1524),  
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 activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller (p. 2486),  
 activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller (p. 2592),  
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 (p. 516), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller`  
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`activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1177),  
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`activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1230),  
`activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1268),  
`activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller` (p. 1293),  
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`tivemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller` (p. 1347), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372),  
`activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407),  
`activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller` (p. 1506),  
`activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller` (p. 1528), `ac-`  
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`activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797),  
`activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller` (p. 1855),  
`activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller` (p. 1880),  
`activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller` (p. 1903), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller` (p. 1927),  
`activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1938),  
`activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller`  
 (p. 1978), `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller`  
 (p. 2014), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller`  
 (p. 2199), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller`  
 (p. 2248), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller`  
 (p. 2274), `activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller` (p. 2297),  
`activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2321), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2364), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller` (p. 2406),  
`activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2494),  
`activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2596),  
`activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller` (p. 2620),  
`activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2645),  
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`tivemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller`  
 (p. 2733), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller`  
 (p. 2765), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802),  
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`tivemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller` (p. 2894), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2954), `ac-`  
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`activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3233), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3246), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3384), and  
`activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3432).

**6.263.3.4** virtual void activemq::wireformat::openwire::marshal::DataStreamMarshaller::looseUnmarshal (OpenWireFormat \* *format*, commands::DataStructure \* *command*, decaf::io::DataInputStream \* *dis*) throw ( decaf::io::IOException ) [pure virtual]

Loose Un-marhsal to the given stream.

#### Parameters:

*format* - The OpenWireFormat properties  
*command* - the object to Un-Marshal  
*dis* - the DataInputStream to Un-Marshal from

#### Exceptions:

*IOException* if an error occurs.

Implemented in activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller (p. 183), activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller (p. 219), activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller (p. 290), activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller (p. 328), activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller (p. 351), activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller (p. 392), activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller (p. 429), activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller (p. 485), activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller (p. 508), activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller (p. 534), activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller (p. 559), activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller (p. 584), activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller (p. 608), activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller (p. 666), activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller (p. 761), activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller (p. 789), activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller (p. 1146), activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller (p. 1170), activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller (p. 1197), activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller (p. 1227), activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1265), activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller (p. 1290), activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1315), activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1344), activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1369), activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1404), activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1503), activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller (p. 1533), activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1591), activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1685), activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1786), activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller (p. 1852), activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller (p. 1869), activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller (p. 1900), activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller (p. 1924), activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller (p. 1951),

activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller  
 (p. 1967), activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller  
 (p. 2011), activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller  
 (p. 2212), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller  
 (p. 2245), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2271), activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller (p. 2302),  
 activemq::wireformat::openwire::marshal::v1::MessageMarshaller (p. 2326), ac-  
 tivemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2361), ac-  
 tivemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller (p. 2411),  
 activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller (p. 2491),  
 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2601),  
 activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller (p. 2625),  
 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2654),  
 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2709), ac-  
 tivemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller  
 (p. 2742), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2774), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2808),  
 activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller (p. 2863), ac-  
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 tivemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller (p. 2939), ac-  
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 activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller (p. 3225),  
 activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller (p. 3255),  
 activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller (p. 3389),  
 activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller (p. 3429),  
 activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller  
 (p. 195), activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller  
 (p. 231), activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller  
 (p. 302), activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller  
 (p. 340), activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller  
 (p. 363), activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller  
 (p. 404), activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller  
 (p. 441), activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller  
 (p. 497), activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller  
 (p. 520), activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller  
 (p. 546), activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller  
 (p. 571), activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller  
 (p. 596), activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller  
 (p. 620), activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller  
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 activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller (p. 801), ac-  
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 activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller (p. 1182),  
 activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller (p. 1209),  
 activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller (p. 1235),  
 activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller (p. 1273),  
 activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller (p. 1298),  
 activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller (p. 1327), ac-  
 tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller (p. 1352), ac-  
 tivemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller (p. 1377),  
 activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller (p. 1416),  
 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller (p. 1491),  
 activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller (p. 1517), ac-  
 tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1587),



activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller (p. 1681),  
 activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller (p. 1782),  
 activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller (p. 1840),  
 activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller (p. 1865),  
 activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller (p. 1888),  
 activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller (p. 1912),  
 activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller (p. 1935),  
 activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller  
 (p. 1963), activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller  
 (p. 1999), activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller  
 (p. 2196), activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller  
 (p. 2233), activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller  
 (p. 2259), activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller (p. 2286),  
 activemq::wireformat::openwire::marshal::v2::MessageMarshaller (p. 2306),  
 activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller (p. 2353),  
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 activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller (p. 2479),  
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 activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller (p. 2613),  
 activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller (p. 2638),  
 activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller (p. 2717),  
 activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller  
 (p. 2738), activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller  
 (p. 2758), activemq::wireformat::openwire::marshal::v2::ResponseMarshaller (p. 2793),  
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 activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller (p. 3120),  
 activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller (p. 3221),  
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 activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller (p. 3417),  
 activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller  
 (p. 179), activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller  
 (p. 215), activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller  
 (p. 286), activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller  
 (p. 324), activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller  
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 (p. 388), activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller  
 (p. 425), activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller  
 (p. 481), activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller  
 (p. 504), activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller  
 (p. 530), activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller  
 (p. 555), activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller  
 (p. 580), activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller  
 (p. 604), activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller  
 (p. 659), activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller (p. 757),  
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 activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller (p. 1193),  
 activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller (p. 1219),  
 activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller (p. 1257),  
 activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller (p. 1282),

activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller (p. 1311),  
 activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller (p. 1336),  
 activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller (p. 1361),  
 activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller (p. 1400),  
 activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller (p. 1495),  
 activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller (p. 1521),  
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 activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller (p. 1790),  
 activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller (p. 1848),  
 activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller (p. 1873),  
 activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller (p. 1896),  
 activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller (p. 1916),  
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 (p. 2015), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller`  
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`tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3385), and  
`activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).

```

6.263.3.5 virtual int ac-
tivemq::wireformat::openwire::marshal::DataStreamMarshaller::tightMarshal1
(OpenWireFormat * format, commands::DataStructure * command,
utils::BooleanStream * bs) throw ( decaf::io::IOException ) [pure
virtual]

```

Tight Marshal to the given stream.

#### Parameters:

*format* - The OpenWireFormat properties

*command* - the object to Marshal

*bs* - boolean stream to marshal to.

#### Exceptions:

*IOException* if an error occurs.

Implemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 183), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 219), `activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller` (p. 291), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 328), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 351), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 392), `activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller` (p. 429), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 485), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller` (p. 509), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller` (p. 534), `activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller` (p. 559), `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 584), `activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller` (p. 608), `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667), `activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller` (p. 761), `activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller` (p. 789), `activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller` (p. 1146), `activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller` (p. 1170), `activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller` (p. 1197), `activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller` (p. 1227), `activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller` (p. 1265), `activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller` (p. 1290), `activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller` (p. 1315), `activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller` (p. 1344), `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1369), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1404), `activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller` (p. 1503), `activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller` (p. 1533), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1591), `activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller` (p. 1685), `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1786), `activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller` (p. 1852), `activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller` (p. 1869), `activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller` (p. 1900), `activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller` (p. 1924), `activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller` (p. 1951),

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 (p. 1971), activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller  
 (p. 2003), activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller  
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`activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1798),  
`activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller` (p. 1856),  
`activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller` (p. 1881),  
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`tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller` (p. 1928),  
`activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1939),  
`activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller`  
 (p. 1979), `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller`  
 (p. 2015), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller`  
 (p. 2200), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller`  
 (p. 2249), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller`  
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`tivemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2365), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller` (p. 2407),  
`activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2495),  
`activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2597),  
`activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller` (p. 2621),  
`activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2646),  
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 (p. 2734), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller`  
 (p. 2766), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2803),  
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`tivemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller` (p. 2895), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2955), `ac-`  
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`tivemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3247), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3385), and  
`activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).

6.263.3.6 virtual void activemq::wireformat::openwire::marshal::DataStreamMarshaller::tightMarshal2 (OpenWireFormat \* *format*, commands::DataStructure \* *command*, decaf::io::DataOutputStream \* *ds*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [pure virtual]

Tight Marshal to the given stream.

#### Parameters:

*format* - The OpenWireFormat properties

*command* - the object to Marshal

*ds* - the DataOutputStream to Marshal to

*bs* - boolean stream to marshal to.

#### Exceptions:

*IOException* if an error occurs.

Implemented in activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller (p. 183), activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller (p. 219), activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller (p. 291), activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller (p. 328), activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller (p. 351), activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller (p. 392), activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller (p. 429), activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller (p. 485), activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller (p. 509), activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller (p. 534), activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller (p. 559), activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller (p. 584), activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller (p. 608), activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller (p. 668), activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller (p. 761), activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller (p. 789), activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller (p. 1146), activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller (p. 1170), activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller (p. 1197), activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller (p. 1227), activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1265), activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller (p. 1290), activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1315), activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1344), activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1370), activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1405), activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1503), activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller (p. 1533), activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1592), activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1685), activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1787), activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller (p. 1852), activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller (p. 1869), activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller (p. 1900), activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller (p. 1924),

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 (p. 1968), activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller  
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 (p. 2212), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller  
 (p. 2245), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2271), activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller (p. 2302),  
 activemq::wireformat::openwire::marshal::v1::MessageMarshaller (p. 2328), ac-  
 tivemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2361), ac-  
 tivemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller (p. 2411),  
 activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller (p. 2492),  
 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2601),  
 activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller (p. 2625),  
 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2654),  
 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2709), ac-  
 tivemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller  
 (p. 2742), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2774), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2809),  
 activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller (p. 2863), ac-  
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 activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller  
 (p. 195), activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller  
 (p. 231), activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller  
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 (p. 340), activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller  
 (p. 363), activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller  
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 (p. 441), activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller  
 (p. 497), activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller  
 (p. 521), activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller  
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 activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller (p. 1182),  
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 activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller (p. 1235),  
 activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller (p. 1273),  
 activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller (p. 1298),  
 activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller (p. 1327), ac-  
 tivemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller (p. 1352), ac-  
 tivemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller (p. 1378),  
 activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller (p. 1417),  
 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller (p. 1491),  
 activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller (p. 1517), ac-

tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller (p. 1588),  
 activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller (p. 1681),  
 activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller (p. 1783),  
 activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller (p. 1840),  
 activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller (p. 1865),  
 activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller (p. 1888),  
 activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller (p. 1912),  
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 (p. 1964), activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller  
 (p. 1999), activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller  
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 activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller (p. 2613),  
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 activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller (p. 2867),  
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 activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller (p. 2951),  
 activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller (p. 3120),  
 activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller (p. 3222),  
 activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller (p. 3263),  
 activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller (p. 3381),  
 activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller (p. 3417),  
 activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller  
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 activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller (p. 1362),  
 activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller (p. 1401),  
 activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller (p. 1495),  
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 activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller (p. 1689),  
 activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller (p. 1791),  
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 activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller (p. 1873),  
 activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller (p. 1896),  
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 activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller  
 (p. 1972), activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller  
 (p. 2003), activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller  
 (p. 2204), activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller  
 (p. 2241), activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller  
 (p. 2267), activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller (p. 2294),  
 activemq::wireformat::openwire::marshal::v3::MessageMarshaller (p. 2318),  
 activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller (p. 2357),  
 activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller (p. 2403),  
 activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller (p. 2484),  
 activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller (p. 2589),  
 activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller (p. 2617),  
 activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller (p. 2642),  
 activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller (p. 2721),  
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 (p. 2746), activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller  
 (p. 2762), activemq::wireformat::openwire::marshal::v3::ResponseMarshaller (p. 2799),  
 activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller (p. 2875),  
 activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller (p. 2899),  
 activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller (p. 2947),  
 activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller (p. 3108),  
 activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller (p. 3238),  
 activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller (p. 3251),  
 activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller (p. 3397),  
 activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller (p. 3421),  
 activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller  
 (p. 187), activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller  
 (p. 223), activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller  
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`activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller` (p. 1201),  
`activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller` (p. 1223),  
`activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller` (p. 1261),  
`activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller` (p. 1286),  
`activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller` (p. 1319), `ac-`  
`tivemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller` (p. 1340), `ac-`  
`tivemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1366),  
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`activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller` (p. 1499),  
`activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller` (p. 1525), `ac-`  
`tivemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1600),  
`activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller` (p. 1693),  
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`activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller` (p. 1844),  
`activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller` (p. 1877),  
`activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller` (p. 1892), `ac-`  
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`tivemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller` (p. 2415),  
`activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2488),  
`activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller` (p. 2593),  
`activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller` (p. 2629),  
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(p. 2770), `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2814),  
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`tivemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller` (p. 3116),  
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(p. 437), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller`  
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 (p. 517), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller`  
 (p. 542), `activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller`  
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`activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller` (p. 1178),  
`activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller` (p. 1205),  
`activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller` (p. 1231),  
`activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller` (p. 1269),  
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`activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller` (p. 1323), `ac-`  
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`activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1799),  
`activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller` (p. 1856),  
`activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller` (p. 1881),  
`activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller` (p. 1904), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller` (p. 1928),  
`activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller` (p. 1939),  
`activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller`  
 (p. 1980), `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller`  
 (p. 2015), `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller`  
 (p. 2200), `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller`  
 (p. 2249), `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller`  
 (p. 2275), `activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller` (p. 2298),  
`activemq::wireformat::openwire::marshal::v5::MessageMarshaller` (p. 2323), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::MessagePullMarshaller` (p. 2365), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller` (p. 2407),  
`activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2496),  
`activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller` (p. 2597),  
`activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller` (p. 2621),  
`activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller` (p. 2646),  
`activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller` (p. 2713), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller`  
 (p. 2734), `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller`  
 (p. 2766), `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2804),  
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`tivemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller` (p. 2955), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller` (p. 3112),  
`activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3234), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3247), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3385), and  
`activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).



**6.263.3.7** virtual void activemq::wireformat::openwire::marshal::DataStreamMarshaller::tightUnmarshal (OpenWireFormat \* *format*, commands::DataStructure \* *command*, decaf::io::DataInputStream \* *dis*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [pure virtual]

Tight Un-marhsal to the given stream.

**Parameters:**

*format* - The OpenwireFormat properties  
*command* - the object to Un-Marshal  
*dis* - the DataInputStream to Un-Marshal from  
*bs* - boolean stream to unmarshal from.

**Exceptions:**

*IOException* if an error occurs.

Implemented in activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller (p. 184), activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller (p. 220), activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller (p. 292), activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller (p. 329), activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller (p. 352), activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller (p. 393), activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller (p. 430), activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller (p. 486), activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller (p. 510), activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller (p. 535), activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller (p. 560), activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller (p. 585), activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller (p. 609), activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller (p. 669), activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller (p. 762), activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller (p. 790), activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller (p. 1147), activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller (p. 1171), activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller (p. 1198), activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller (p. 1228), activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller (p. 1266), activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller (p. 1291), activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller (p. 1316), activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller (p. 1345), activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller (p. 1370), activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller (p. 1405), activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller (p. 1504), activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller (p. 1534), activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller (p. 1592), activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller (p. 1686), activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller (p. 1787), activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller (p. 1853), activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller (p. 1870), activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller (p. 1901), activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller (p. 1925),

activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller (p. 1952),  
 activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller  
 (p. 1968), activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller  
 (p. 2012), activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller  
 (p. 2213), activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller  
 (p. 2246), activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller  
 (p. 2272), activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller (p. 2303),  
 activemq::wireformat::openwire::marshal::v1::MessageMarshaller (p. 2328), ac-  
 tivemq::wireformat::openwire::marshal::v1::MessagePullMarshaller (p. 2362), ac-  
 tivemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller (p. 2412),  
 activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller (p. 2492),  
 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller (p. 2602),  
 activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller (p. 2626),  
 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller (p. 2655),  
 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller (p. 2710), ac-  
 tivemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller  
 (p. 2743), activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller  
 (p. 2775), activemq::wireformat::openwire::marshal::v1::ResponseMarshaller (p. 2810),  
 activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller (p. 2864), ac-  
 tivemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller (p. 2888), ac-  
 tivemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller (p. 2940), ac-  
 tivemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller (p. 3105),  
 activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller (p. 3227),  
 activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller (p. 3256),  
 activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller (p. 3390),  
 activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller (p. 3430),  
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`tivemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller` (p. 3248), `ac-`  
`tivemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller` (p. 3386), and  
`activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3434).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/DataStreamMarshaller.h`

## 6.264 activemq::commands::DataStructure Class Reference

#include <src/main/activemq/commands/DataStructure.h> Inheritance diagram for activemq::commands::DataStructure:

### Public Member Functions

- virtual **~DataStructure** ()
- virtual unsigned char **getDataStructureType** () const =0  
*Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.*
- virtual **DataStructure \* cloneDataStructure** () const =0  
*Clone this obbect and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)=0  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const =0  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const =0  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*

### 6.264.1 Constructor & Destructor Documentation

**6.264.1.1** virtual activemq::commands::DataStructure::~~DataStructure ()  
 [inline, virtual]

### 6.264.2 Member Function Documentation

**6.264.2.1** virtual DataStructure\* activemq::commands::DataStructure::cloneDataStructure ()  
 const [pure virtual]

Clone this obbect and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implemented in  
 (p. 173),      **activemq::commands::ActiveMQBlobMessage** (p. 200),  
**activemq::commands::ActiveMQBytesMessage** (p. 276),      **ac-**  
**tivemq::commands::ActiveMQDestination** (p. 312),      **ac-**  
**tivemq::commands::ActiveMQMapMessage** (p. 343),      **ac-**  
**tivemq::commands::ActiveMQMessage** (p. 343), **activemq::commands::ActiveMQObjectMessage**



(p. 384), `activemq::commands::ActiveMQQueue` (p. 420), `ac-`  
`tivemq::commands::ActiveMQStreamMessage` (p. 467), `ac-`  
`tivemq::commands::ActiveMQTempDestination` (p. 500), `ac-`  
`tivemq::commands::ActiveMQTempQueue` (p. 524), `ac-`  
`tivemq::commands::ActiveMQTempTopic` (p. 549), `activemq::commands::ActiveMQTextMessage`  
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(p. 1188), `activemq::commands::ConnectionInfo` (p. 1212), `ac-`  
`tivemq::commands::ConsumerControl` (p. 1251), `activemq::commands::ConsumerId`  
(p. 1276), `activemq::commands::ConsumerInfo` (p. 1302), `ac-`  
`tivemq::commands::ControlCommand` (p. 1331), `activemq::commands::DataArrayResponse`  
(p. 1357), `activemq::commands::DataResponse` (p. 1396), `ac-`  
`tivemq::commands::DestinationInfo` (p. 1485), `activemq::commands::DiscoveryEvent`  
(p. 1512), `activemq::commands::ExceptionResponse` (p. 1583), `ac-`  
`tivemq::commands::FlushCommand` (p. 1677), `activemq::commands::IntegerResponse`  
(p. 1778), `activemq::commands::JournalQueueAck` (p. 1835), `ac-`  
`tivemq::commands::JournalTopicAck` (p. 1859), `activemq::commands::JournalTrace`  
(p. 1884), `activemq::commands::JournalTransaction` (p. 1907), `ac-`  
`tivemq::commands::KeepAliveInfo` (p. 1931), `activemq::commands::LastPartialCommand`  
(p. 1959), `activemq::commands::LocalTransactionId` (p. 1994), `ac-`  
`tivemq::commands::Message` (p. 2149), `activemq::commands::MessageAck`  
(p. 2189), `activemq::commands::MessageDispatch` (p. 2220), `ac-`  
`tivemq::commands::MessageDispatchNotification` (p. 2252), `ac-`  
`tivemq::commands::MessageId` (p. 2280), `activemq::commands::MessagePull`  
(p. 2347), `activemq::commands::NetworkBridgeFilter` (p. 2394), `ac-`  
`tivemq::commands::PartialCommand` (p. 2474), `activemq::commands::ProducerAck`  
(p. 2580), `activemq::commands::ProducerId` (p. 2607), `ac-`  
`tivemq::commands::ProducerInfo` (p. 2632), `activemq::commands::RemoveInfo`  
(p. 2704), `activemq::commands::RemoveSubscriptionInfo` (p. 2728), `ac-`  
`tivemq::commands::ReplayCommand` (p. 2753), `activemq::commands::Response`  
(p. 2782), `activemq::commands::SessionId` (p. 2854), `ac-`  
`tivemq::commands::SessionInfo` (p. 2878), `activemq::commands::ShutdownInfo`  
(p. 2935), `activemq::commands::SubscriptionInfo` (p. 3098), `ac-`  
`tivemq::commands::TransactionId` (p. 3218), `activemq::commands::TransactionInfo`  
(p. 3241), `activemq::commands::WireFormatInfo` (p. 3372), and `ac-`  
`tivemq::commands::XATransactionId` (p. 3411).

### 6.264.2.2 virtual void `activemq::commands::DataStructure::copyDataStructure` (const `DataStructure * src`) [pure virtual]

Copy the contents of the passed object into this objects members, overwriting any existing data.

#### Returns:

`src` - Source Object

Implemented in `activemq::commands::ActiveMQBlobMessage`  
(p. 173), `activemq::commands::ActiveMQBytesMessage` (p. 201),  
`activemq::commands::ActiveMQDestination` (p. 277), `ac-`  
`tivemq::commands::ActiveMQMapMessage` (p. 312), `ac-`  
`tivemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQObjectMessage`

(p. 384),      `activemq::commands::ActiveMQQueue`      (p. 420),      `ac-`  
`tivemq::commands::ActiveMQStreamMessage`      (p. 467),      `ac-`  
`tivemq::commands::ActiveMQTempDestination`      (p. 500),      `ac-`  
`tivemq::commands::ActiveMQTempQueue`      (p. 525),      `ac-`  
`tivemq::commands::ActiveMQTempTopic` (p. 550), `activemq::commands::ActiveMQTextMessage`  
(p. 575),      `activemq::commands::ActiveMQTopic`      (p. 599),      `ac-`  
`tivemq::commands::BaseCommand`      (p. 651),      `activemq::commands::BrokerError`  
(p. 746), `activemq::commands::BrokerId`      (p. 752), `activemq::commands::BrokerInfo`  
(p. 777),      `activemq::commands::ConnectionControl`      (p. 1136),      `ac-`  
`tivemq::commands::ConnectionError` (p. 1161), `activemq::commands::ConnectionId`  
(p. 1188),      `activemq::commands::ConnectionInfo`      (p. 1213),      `ac-`  
`tivemq::commands::ConsumerControl` (p. 1251), `activemq::commands::ConsumerId`  
(p. 1276),      `activemq::commands::ConsumerInfo`      (p. 1302),      `ac-`  
`tivemq::commands::ControlCommand` (p. 1331), `activemq::commands::DataArrayResponse`  
(p. 1357),      `activemq::commands::DataResponse`      (p. 1396),      `ac-`  
`tivemq::commands::DestinationInfo` (p. 1485), `activemq::commands::DiscoveryEvent`  
(p. 1512),      `activemq::commands::ExceptionResponse`      (p. 1583),      `ac-`  
`tivemq::commands::FlushCommand` (p. 1677), `activemq::commands::IntegerResponse`  
(p. 1778),      `activemq::commands::JournalQueueAck`      (p. 1835),      `ac-`  
`tivemq::commands::JournalTopicAck` (p. 1859), `activemq::commands::JournalTrace`  
(p. 1884),      `activemq::commands::JournalTransaction`      (p. 1907),      `ac-`  
`tivemq::commands::KeepAliveInfo` (p. 1931), `activemq::commands::LastPartialCommand`  
(p. 1959),      `activemq::commands::LocalTransactionId`      (p. 1994),      `ac-`  
`tivemq::commands::Message`      (p. 2150),      `activemq::commands::MessageAck`  
(p. 2189),      `activemq::commands::MessageDispatch`      (p. 2220),      `ac-`  
`tivemq::commands::MessageDispatchNotification`      (p. 2252),      `ac-`  
`tivemq::commands::MessageId`      (p. 2280),      `activemq::commands::MessagePull`  
(p. 2347),      `activemq::commands::NetworkBridgeFilter`      (p. 2394),      `ac-`  
`tivemq::commands::PartialCommand` (p. 2474), `activemq::commands::ProducerAck`  
(p. 2580),      `activemq::commands::ProducerId`      (p. 2607),      `ac-`  
`tivemq::commands::ProducerInfo`      (p. 2632),      `activemq::commands::RemoveInfo`  
(p. 2704),      `activemq::commands::RemoveSubscriptionInfo`      (p. 2728),      `ac-`  
`tivemq::commands::ReplayCommand`      (p. 2753),      `activemq::commands::Response`  
(p. 2782),      `activemq::commands::SessionId`      (p. 2854),      `ac-`  
`tivemq::commands::SessionInfo`      (p. 2878),      `activemq::commands::ShutdownInfo`  
(p. 2935),      `activemq::commands::SubscriptionInfo`      (p. 3098),      `ac-`  
`tivemq::commands::TransactionId`      (p. 3218), `activemq::commands::TransactionInfo`  
(p. 3241),      `activemq::commands::WireFormatInfo`      (p. 3372),      and      `ac-`  
`tivemq::commands::XATransactionId` (p. 3411).

### 6.264.2.3 `virtual bool activemq::commands::DataStructure::equals (const DataStructure * value) const` [pure virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if `DataStructure`'s are Equal.

Implemented      in      `activemq::commands::ActiveMQBlobMessage`  
(p. 174),      `activemq::commands::ActiveMQBytesMessage`      (p. 201),  
`activemq::commands::ActiveMQDestination`      (p. 278),      `ac-`

tivemq::commands::ActiveMQMapMessage (p. 312), ac-  
 tivemq::commands::ActiveMQMessage (p. 343), activemq::commands::ActiveMQMessageTemplate<  
 T > (p. 369), activemq::commands::ActiveMQObjectMessage  
 (p. 384), activemq::commands::ActiveMQQueue (p. 421), ac-  
 tivemq::commands::ActiveMQStreamMessage (p. 468), ac-  
 tivemq::commands::ActiveMQTempDestination (p. 501), ac-  
 tivemq::commands::ActiveMQTempQueue (p. 525), ac-  
 tivemq::commands::ActiveMQTempTopic (p. 550), activemq::commands::ActiveMQTextMessage  
 (p. 575), activemq::commands::ActiveMQTopic (p. 600), ac-  
 tivemq::commands::BaseCommand (p. 651), activemq::commands::BooleanExpression  
 (p. 738), activemq::commands::BrokerId (p. 752), activemq::commands::BrokerInfo  
 (p. 777), activemq::commands::ConnectionControl (p. 1137), ac-  
 tivemq::commands::ConnectionError (p. 1161), activemq::commands::ConnectionId  
 (p. 1189), activemq::commands::ConnectionInfo (p. 1213), ac-  
 tivemq::commands::ConsumerControl (p. 1252), activemq::commands::ConsumerId  
 (p. 1277), activemq::commands::ConsumerInfo (p. 1303), ac-  
 tivemq::commands::ControlCommand (p. 1331), activemq::commands::DataArrayResponse  
 (p. 1357), activemq::commands::DataResponse (p. 1396), ac-  
 tivemq::commands::DestinationInfo (p. 1486), activemq::commands::DiscoveryEvent  
 (p. 1512), activemq::commands::ExceptionResponse (p. 1583), ac-  
 tivemq::commands::FlushCommand (p. 1677), activemq::commands::IntegerResponse  
 (p. 1778), activemq::commands::JournalQueueAck (p. 1835), ac-  
 tivemq::commands::JournalTopicAck (p. 1860), activemq::commands::JournalTrace  
 (p. 1884), activemq::commands::JournalTransaction (p. 1907), ac-  
 tivemq::commands::KeepAliveInfo (p. 1931), activemq::commands::LastPartialCommand  
 (p. 1959), activemq::commands::LocalTransactionId (p. 1995), ac-  
 tivemq::commands::Message (p. 2150), activemq::commands::MessageAck  
 (p. 2190), activemq::commands::MessageDispatch (p. 2221), ac-  
 tivemq::commands::MessageDispatchNotification (p. 2253), ac-  
 tivemq::commands::MessageId (p. 2281), activemq::commands::MessagePull  
 (p. 2348), activemq::commands::NetworkBridgeFilter (p. 2394), ac-  
 tivemq::commands::PartialCommand (p. 2474), activemq::commands::ProducerAck  
 (p. 2580), activemq::commands::ProducerId (p. 2608), ac-  
 tivemq::commands::ProducerInfo (p. 2633), activemq::commands::RemoveInfo  
 (p. 2704), activemq::commands::RemoveSubscriptionInfo (p. 2729), ac-  
 tivemq::commands::ReplayCommand (p. 2753), activemq::commands::Response  
 (p. 2782), activemq::commands::SessionId (p. 2855), ac-  
 tivemq::commands::SessionInfo (p. 2878), activemq::commands::ShutdownInfo  
 (p. 2935), activemq::commands::SubscriptionInfo (p. 3099), ac-  
 tivemq::commands::TransactionId (p. 3218), activemq::commands::TransactionInfo  
 (p. 3241), activemq::commands::WireFormatInfo (p. 3372), ac-  
 tivemq::commands::XATransactionId (p. 3412), activemq::commands::ActiveMQMessageTemplate<  
 cms::BytesMessage > (p. 369), activemq::commands::ActiveMQMessageTemplate<  
 cms::MapMessage > (p. 369), activemq::commands::ActiveMQMessageTemplate<  
 cms::Message > (p. 369), activemq::commands::ActiveMQMessageTemplate<  
 cms::StreamMessage > (p. 369), activemq::commands::ActiveMQMessageTemplate<  
 cms::TextMessage > (p. 369), and activemq::commands::ActiveMQMessageTemplate<  
 cms::ObjectMessage > (p. 369).

**6.264.2.4** virtual unsigned char activemq::commands::DataStructure::getDataStructureType  
 () const [pure virtual]

Get the **DataStructure** (p. 1461) Type as defined in CommandTypes.h.

#### Returns:

The type of the data structure

Implemented in **activemq::commands::ActiveMQBlobMessage** (p. 174), **activemq::commands::ActiveMQBytesMessage** (p. 202), **activemq::commands::ActiveMQDestination** (p. 278), **activemq::commands::ActiveMQMapMessage** (p. 314), **activemq::commands::ActiveMQMessage** (p. 343), **activemq::commands::ActiveMQObjectMessage** (p. 385), **activemq::commands::ActiveMQQueue** (p. 421), **activemq::commands::ActiveMQStreamMessage** (p. 468), **activemq::commands::ActiveMQTempDestination** (p. 501), **activemq::commands::ActiveMQTempQueue** (p. 526), **activemq::commands::ActiveMQTempTopic** (p. 551), **activemq::commands::ActiveMQTextMessage** (p. 575), **activemq::commands::ActiveMQTopic** (p. 600), **activemq::commands::BrokerError** (p. 747), **activemq::commands::BrokerId** (p. 753), **activemq::commands::BrokerInfo** (p. 778), **activemq::commands::ConnectionControl** (p. 1137), **activemq::commands::ConnectionError** (p. 1162), **activemq::commands::ConnectionId** (p. 1189), **activemq::commands::ConnectionInfo** (p. 1213), **activemq::commands::ConsumerControl** (p. 1252), **activemq::commands::ConsumerId** (p. 1277), **activemq::commands::ConsumerInfo** (p. 1303), **activemq::commands::ControlCommand** (p. 1332), **activemq::commands::DataArrayResponse** (p. 1358), **activemq::commands::DataResponse** (p. 1397), **activemq::commands::DestinationInfo** (p. 1486), **activemq::commands::DiscoveryEvent** (p. 1513), **activemq::commands::ExceptionResponse** (p. 1583), **activemq::commands::FlushCommand** (p. 1677), **activemq::commands::IntegerResponse** (p. 1778), **activemq::commands::JournalQueueAck** (p. 1835), **activemq::commands::JournalTopicAck** (p. 1860), **activemq::commands::JournalTrace** (p. 1884), **activemq::commands::JournalTransaction** (p. 1908), **activemq::commands::KeepAliveInfo** (p. 1931), **activemq::commands::LastPartialCommand** (p. 1960), **activemq::commands::LocalTransactionId** (p. 1995), **activemq::commands::Message** (p. 2152), **activemq::commands::MessageAck** (p. 2190), **activemq::commands::MessageDispatch** (p. 2221), **activemq::commands::MessageDispatchNotification** (p. 2253), **activemq::commands::MessageId** (p. 2281), **activemq::commands::MessagePull** (p. 2348), **activemq::commands::NetworkBridgeFilter** (p. 2395), **activemq::commands::PartialCommand** (p. 2475), **activemq::commands::ProducerAck** (p. 2581), **activemq::commands::ProducerId** (p. 2608), **activemq::commands::ProducerInfo** (p. 2633), **activemq::commands::RemoveInfo** (p. 2705), **activemq::commands::RemoveSubscriptionInfo** (p. 2729), **activemq::commands::ReplayCommand** (p. 2754), **activemq::commands::Response** (p. 2783), **activemq::commands::SessionId** (p. 2855), **activemq::commands::SessionInfo** (p. 2879), **activemq::commands::ShutdownInfo** (p. 2935), **activemq::commands::SubscriptionInfo** (p. 3099), **activemq::commands::TransactionId** (p. 3219), **activemq::commands::TransactionInfo** (p. 3242), **activemq::commands::WireFormatInfo** (p. 3373), and **activemq::commands::XATransactionId** (p. 3412).

### 6.264.2.5 virtual std::string activemq::commands::DataStructure::toString () const [pure virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Implemented in **activemq::commands::ActiveMQBlobMessage** (p.176), **activemq::commands::ActiveMQBytesMessage** (p.208), **activemq::commands::ActiveMQDestination** (p.282), **activemq::commands::ActiveMQMapMessage** (p.320), **activemq::commands::ActiveMQMessage** (p.344), **activemq::commands::ActiveMQObjectMessage** (p.385), **activemq::commands::ActiveMQQueue** (p.422), **activemq::commands::ActiveMQStreamMessage** (p.474), **activemq::commands::ActiveMQTempDestination** (p.501), **activemq::commands::ActiveMQTempQueue** (p.526), **activemq::commands::ActiveMQTempTopic** (p.551), **activemq::commands::ActiveMQTextMessage** (p.577), **activemq::commands::ActiveMQTopic** (p.601), **activemq::commands::BaseCommand** (p.655), **activemq::commands::BaseDataStructure** (p.718), **activemq::commands::BooleanExpression** (p.738), **activemq::commands::BrokerId** (p.753), **activemq::commands::BrokerInfo** (p.780), **activemq::commands::Command** (p.1067), **activemq::commands::ConnectionControl** (p.1138), **activemq::commands::ConnectionError** (p.1162), **activemq::commands::ConnectionId** (p.1189), **activemq::commands::ConnectionInfo** (p.1215), **activemq::commands::ConsumerControl** (p.1253), **activemq::commands::ConsumerId** (p.1278), **activemq::commands::ConsumerInfo** (p.1305), **activemq::commands::ControlCommand** (p.1332), **activemq::commands::DataArrayResponse** (p.1358), **activemq::commands::DataResponse** (p.1397), **activemq::commands::DestinationInfo** (p.1487), **activemq::commands::DiscoveryEvent** (p.1513), **activemq::commands::ExceptionResponse** (p.1584), **activemq::commands::FlushCommand** (p.1678), **activemq::commands::IntegerResponse** (p.1779), **activemq::commands::JournalQueueAck** (p.1836), **activemq::commands::JournalTopicAck** (p.1861), **activemq::commands::JournalTrace** (p.1885), **activemq::commands::JournalTransaction** (p.1908), **activemq::commands::KeepAliveInfo** (p.1932), **activemq::commands::LastPartialCommand** (p.1960), **activemq::commands::LocalTransactionId** (p.1996), **activemq::commands::Message** (p.2159), **activemq::commands::MessageAck** (p.2192), **activemq::commands::MessageDispatch** (p.2222), **activemq::commands::MessageDispatchNotification** (p.2255), **activemq::commands::MessageId** (p.2282), **activemq::commands::MessagePull** (p.2349), **activemq::commands::NetworkBridgeFilter** (p.2395), **activemq::commands::PartialCommand** (p.2475), **activemq::commands::ProducerAck** (p.2581), **activemq::commands::ProducerId** (p.2609), **activemq::commands::ProducerInfo** (p.2634), **activemq::commands::RemoveInfo** (p.2705), **activemq::commands::RemoveSubscriptionInfo** (p.2730), **activemq::commands::ReplayCommand** (p.2754), **activemq::commands::Response** (p.2783), **activemq::commands::SessionId** (p.2856), **activemq::commands::SessionInfo** (p.2879), **activemq::commands::ShutdownInfo** (p.2936), **activemq::commands::SubscriptionInfo** (p.3100), **activemq::commands::TransactionId** (p.3219), **activemq::commands::TransactionInfo**

(p. 3243), `activemq::commands::WireFormatInfo` (p. 3378), and `activemq::commands::XATransactionId` (p. 3413).

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/DataSetStructure.h`

## 6.265 decaf::util::Date Class Reference

Wrapper class around a time value in milliseconds.

#include <src/main/decaf/util/Date.h> Inheritance diagram for decaf::util::Date:

### Public Member Functions

- **Date** ()  
*Default constructor - sets time to the current System time, rounded to the nearest millisecond.*
- **Date** (long long milliseconds)  
*Constructs the date with a given time value.*
- **Date** (const **Date** &source)  
*Copy constructor.*
- **Date** & **operator=** (const **Date** &value)  
*Assigns the value of one **Date** (p. 1467) object to another.*
- virtual ~**Date** ()
- long long **getTime** () const  
*Gets the underlying time.*
- void **setTime** (long long milliseconds)  
*Sets the underlying time.*
- bool **after** (const **Date** &when) const  
*Determines whether or not this date falls after the specified time.*
- bool **before** (const **Date** &when) const  
*Determines whether or not this date falls before the specified time.*
- std::string **toString** () const  
*Converts this **Date** (p. 1467) object to a String of the form:.*
- virtual int **compareTo** (const **Date** &value) const  
*Compares this Data object to the one given.*
- virtual bool **equals** (const **Date** &value) const
- virtual bool **operator==** (const **Date** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Date** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

### 6.265.1 Detailed Description

Wrapper class around a time value in milliseconds. This class is comparable to Java's `java.util.Date` class.

**Since:**

1.0

### 6.265.2 Constructor & Destructor Documentation

#### 6.265.2.1 `decaf::util::Date::Date ()`

Default constructor - sets time to the current System time, rounded to the nearest millisecond.

#### 6.265.2.2 `decaf::util::Date::Date (long long milliseconds)`

Constructs the date with a given time value.

**Parameters:**

*milliseconds* The time in milliseconds;

#### 6.265.2.3 `decaf::util::Date::Date (const Date & source)`

Copy constructor.

**Parameters:**

*source* The **Date** (p. 1467) instance to copy into this one.

#### 6.265.2.4 `virtual decaf::util::Date::~~Date ()` [virtual]

### 6.265.3 Member Function Documentation

#### 6.265.3.1 `bool decaf::util::Date::after (const Date & when) const`

Determines whether or not this date falls after the specified time.

**Parameters:**

*when* The date to compare

**Returns:**

true if this date falls after when.

#### 6.265.3.2 `bool decaf::util::Date::before (const Date & when) const`

Determines whether or not this date falls before the specified time.



**Parameters:**

*when* The date to compare

**Returns:**

true if this date falls before when.

**6.265.3.3 virtual int decaf::util::Date::compareTo (const Date & *value*) const**  
[virtual]

Compares this Date object to the one given.

**Parameters:**

*value* The **Date** (p. 1467) value to compare to this one.

**Returns:**

zero if the **Date** (p. 1467) values are equal, a value less than zero if this Date value is earlier than argument value, and a value greater than zero if this **Date** (p. 1467) object is later than the argument **Date** (p. 1467) value.

**6.265.3.4 virtual bool decaf::util::Date::equals (const Date & *value*) const**  
[virtual]**Returns:**

true if this value is considered equal to the passed value.

**6.265.3.5 long long decaf::util::Date::getTime () const**

Gets the underlying time.

**Returns:**

The underlying time value in milliseconds.

**6.265.3.6 virtual bool decaf::util::Date::operator< (const Date & *value*) const**  
[virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.265.3.7    Date& decaf::util::Date::operator= (const Date & *value*)**

Assigns the value of one **Date** (p. 1467) object to another.

**Parameters:**

*value* The value to be copied into this **Date** (p. 1467) object.

**Returns:**

reference to this object with the newly assigned value.

**6.265.3.8    virtual bool decaf::util::Date::operator== (const Date & *value*) const**  
[virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.265.3.9    void decaf::util::Date::setTime (long long *milliseconds*)**

Sets the underlying time.

**Parameters:**

*milliseconds* The underlying time value in milliseconds.

**6.265.3.10    std::string decaf::util::Date::toString () const**

Converts this **Date** (p. 1467) object to a String of the form: . dow mon dd hh:mm:ss zzz yyyy where:

- dow is the day of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
- mon is the month (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec).
- dd is the day of the month (01 through 31), as two decimal digits.
- hh is the hour of the day (00 through 23), as two decimal digits.
- mm is the minute within the hour (00 through 59), as two decimal digits.
- ss is the second within the minute (00 through 61, as two decimal digits.
- zzz is the time zone (and may reflect daylight saving time). Standard time zone abbreviations include those recognized by the method parse. If time zone information is not available, then zzz is empty - that is, it consists of no characters at all.

- yyyy is the year, as four decimal digits.

**Returns:**

the String representation of the **Date** (p. 1467) object.

The documentation for this class was generated from the following file:

- src/main/decaf/util/**Date.h**

## 6.266 decaf::internal::DecafRuntime Class Reference

Handles APR initialization and termination.

#include <src/main/decaf/internal/DecafRuntime.h> Inheritance diagram for decaf::internal::DecafRuntime:

### Public Member Functions

- **DecafRuntime ()**  
*Initializes the APR Runtime for a library.*
- **virtual ~DecafRuntime ()**  
*Terminates the APR Runtime for a library.*
- **apr\_pool\_t \* getGlobalPool () const**  
*Grants access to the Global APR Pool instance that should be used when creating new threads.*

### 6.266.1 Detailed Description

Handles APR initialization and termination.

### 6.266.2 Constructor & Destructor Documentation

#### 6.266.2.1 decaf::internal::DecafRuntime::DecafRuntime ()

Initializes the APR Runtime for a library.

#### 6.266.2.2 virtual decaf::internal::DecafRuntime::~~DecafRuntime () [virtual]

Terminates the APR Runtime for a library.

### 6.266.3 Member Function Documentation

#### 6.266.3.1 apr\_pool\_t\* decaf::internal::DecafRuntime::getGlobalPool () const

Grants access to the Global APR Pool instance that should be used when creating new threads.

The documentation for this class was generated from the following file:

- src/main/decaf/internal/**DecafRuntime.h**

## 6.267 activemq::threads::DedicatedTaskRunner Class Reference

#include <src/main/activemq/threads/DedicatedTaskRunner.h> Inheritance diagram for activemq::threads::DedicatedTaskRunner:

### Public Member Functions

- **DedicatedTaskRunner** (**Task** \*task)
- virtual **~DedicatedTaskRunner** ()
- virtual void **shutdown** (unsigned int timeout)

*Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.*

- virtual void **shutdown** ()

*Shutdown once the task has finished and the TaskRunner's thread has exited.*

- virtual void **wakeup** ()

*Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.*

### Protected Member Functions

- virtual void **run** ()

*Run method - called by the Thread class in the context of the thread.*

### 6.267.1 Constructor & Destructor Documentation

**6.267.1.1** **activemq::threads::DedicatedTaskRunner::DedicatedTaskRunner** (**Task** \*task)

**6.267.1.2** **virtual activemq::threads::DedicatedTaskRunner::~~DedicatedTaskRunner** () [virtual]

### 6.267.2 Member Function Documentation

**6.267.2.1** **virtual void activemq::threads::DedicatedTaskRunner::run** () [protected, virtual]

Run method - called by the Thread class in the context of the thread.

Implements **decaf::lang::Runnable** (p. 2816).

**6.267.2.2 virtual void activemq::threads::DedicatedTaskRunner::shutdown ()**  
[virtual]

Shutdown once the task has finished and the TaskRunner's thread has exited.

Implements **activemq::threads::TaskRunner** (p. 3150).

**6.267.2.3 virtual void activemq::threads::DedicatedTaskRunner::shutdown**  
**(unsigned int *timeout*)** [virtual]

Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.

**Parameters:**

*timeout* - Time in Milliseconds to wait for the task to stop.

Implements **activemq::threads::TaskRunner** (p. 3150).

**6.267.2.4 virtual void activemq::threads::DedicatedTaskRunner::wakeup ()**  
[virtual]

Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.

Implements **activemq::threads::TaskRunner** (p. 3151).

The documentation for this class was generated from the following file:

- src/main/activemq/threads/**DedicatedTaskRunner.h**

## 6.268 activemq::transport::DefaultTransportListener Class Reference

#include <src/main/activemq/transport/DefaultTransportListener.h> Inheritance diagram for activemq::transport::DefaultTransportListener:

### Public Member Functions

- virtual **~DefaultTransportListener** ()
- virtual void **onCommand** (const **Pointer**< **Command** > &command *AMQCPP\_UNUSED*)  
*Event handler for the receipt of a command.*
- virtual void **onException** (const **decaf::lang::Exception** &ex *AMQCPP\_UNUSED*)  
*Event handler for an exception from a command transport.*
- virtual void **transportInterrupted** ()  
*The transport has suffered an interruption from which it hopes to recover.*
- virtual void **transportResumed** ()  
*The transport has resumed after an interruption.*

### 6.268.1 Constructor & Destructor Documentation

- 6.268.1.1** virtual **activemq::transport::DefaultTransportListener::~~DefaultTransportListener** () [inline, virtual]

### 6.268.2 Member Function Documentation

- 6.268.2.1** virtual void **activemq::transport::DefaultTransportListener::onCommand** (const **Pointer**< **Command** > &command *AMQCPP\_UNUSED*) [inline, virtual]

Event handler for the receipt of a command. The transport passes off all received commands to its listeners, the listener then owns the Object. If there is no registered listener the **Transport** (p. 3273) deletes the command upon receipt.

#### Parameters:

*command* the received command object.

- 6.268.2.2** virtual void **activemq::transport::DefaultTransportListener::onException** (const **decaf::lang::Exception** &ex *AMQCPP\_UNUSED*) [inline, virtual]

Event handler for an exception from a command transport.

**Parameters:**

*ex* The exception.

**6.268.2.3** `virtual void activemq::transport::DefaultTransportListener::transportInterrupted ()`  
[inline, virtual]

The transport has suffered an interruption from which it hopes to recover.

Implements **activemq::transport::TransportListener** (p. 3290).

**6.268.2.4** `virtual void activemq::transport::DefaultTransportListener::transportResumed ()`  
[inline, virtual]

The transport has resumed after an interruption.

Implements **activemq::transport::TransportListener** (p. 3290).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/DefaultTransportListener.h`



## 6.269 decaf::util::concurrent::Delayed Class Reference

A mix-in style interface for marking objects that should be acted upon after a given delay.

#include <src/main/decaf/util/concurrent/Delayed.h> Inheritance diagram for decaf::util::concurrent::Delayed:

### Public Member Functions

- virtual `~Delayed()`
- virtual long long `getDelay` (const `TimeUnit` &unit)=0

*Returns the remaining delay associated with this object, in the given time unit.*

### 6.269.1 Detailed Description

A mix-in style interface for marking objects that should be acted upon after a given delay. An implementation of this interface must define a `Comparable` methods that provides an ordering consistent with its `getDelay` method.

### 6.269.2 Constructor & Destructor Documentation

**6.269.2.1** virtual `decaf::util::concurrent::Delayed::~~Delayed()` [`inline`, `virtual`]

### 6.269.3 Member Function Documentation

**6.269.3.1** virtual long long `decaf::util::concurrent::Delayed::getDelay` (const `TimeUnit` & *unit*) [`pure virtual`]

Returns the remaining delay associated with this object, in the given time unit.

#### Parameters:

*unit* The time unit

#### Returns:

the remaining delay; zero or negative values indicate that the delay has already elapsed

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Delayed.h`

## 6.270 cms::DeliveryMode Class Reference

This is an Abstract class whose purpose is to provide a container for the delivery mode enumeration for CMS messages.

```
#include <src/main/cms/DeliveryMode.h>
```

### Public Types

- enum **DELIVERY\_MODE** { **PERSISTENT** = 0, **NON\_PERSISTENT** = 1 }

*Enumeration values for **Message** (p. 2163) Delivery Mode.*

### Public Member Functions

- virtual **~DeliveryMode** ()

#### 6.270.1 Detailed Description

This is an Abstract class whose purpose is to provide a container for the delivery mode enumeration for CMS messages. When a client sends a **cms::Message** (p. 2163) it can mark the **Message** (p. 2163) as either Persistent or Non-Persistent. If the client feels that the **Message** (p. 2163) cannot be lost in transit it should mark it as Persistent, otherwise if it is allowable for a **Message** (p. 2163) to occasionally be lost it can mark it as Non-Persistent. This allows the Provider to balance make tradeoffs between balance and **Message** (p. 2163) throughput.

The **DeliveryMode** (p. 1478) covers only the transport of the **Message** (p. 2163) for sending client to its destination and doesn't apply to the receiving **Message** (p. 2163) consumer. The receiving Consumer can drop Message's based on configuration such as memory limits or **Message** (p. 2163) filtering.

A message is guaranteed to be delivered once and only once by a CMS provider if the delivery mode of the message is PERSISTENT and the configuration of the **Message** (p. 2163) consumer allows for it.

**Since:**

1.0

#### 6.270.2 Member Enumeration Documentation

##### 6.270.2.1 enum cms::DeliveryMode::DELIVERY\_MODE

Enumeration values for **Message** (p. 2163) Delivery Mode.

**Enumerator:**

**PERSISTENT**

**NON\_PERSISTENT**

### 6.270.3 Constructor & Destructor Documentation

#### 6.270.3.1 virtual cms::DeliveryMode::~~DeliveryMode () [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/cms/**DeliveryMode.h**

## 6.271 cms::Destination Class Reference

A **Destination** (p. 1480) object encapsulates a provider-specific address.

#include <src/main/cms/Destination.h> Inheritance diagram for cms::Destination:

### Public Types

- enum **DestinationType** { **TOPIC**, **QUEUE**, **TEMPORARY\_TOPIC**, **TEMPORARY\_QUEUE** }

### Public Member Functions

- virtual **~Destination** ()
- virtual **DestinationType** **getDestinationType** () const =0  
*Retrieve the **Destination** (p. 1480) Type for this **Destination** (p. 1480).*
- virtual **cms::Destination \* clone** () const =0  
*Creates a new instance of this destination type that is a copy of this one, and returns it.*
- virtual void **copy** (const **cms::Destination** &source)=0  
*Copies the contents of the given **Destination** (p. 1480) object to this one.*
- virtual const **CMSProperties** & **getCMSProperties** () const =0  
*Retrieve any properties that might be part of the destination that was specified.*

#### 6.271.1 Detailed Description

A **Destination** (p. 1480) object encapsulates a provider-specific address. There is no standard definition of a **Destination** (p. 1480) address, each provider can provide its own definition and there can be configuration data attached to the **Destination** (p. 1480) address.

All CMS **Destination** (p. 1480) objects support concurrent use.

Since:

1.0

#### 6.271.2 Member Enumeration Documentation

##### 6.271.2.1 enum cms::Destination::DestinationType

Enumerator:

**TOPIC**  
**QUEUE**  
**TEMPORARY\_TOPIC**  
**TEMPORARY\_QUEUE**

### 6.271.3 Constructor & Destructor Documentation

**6.271.3.1** virtual cms::Destination::~~Destination () [inline, virtual]

### 6.271.4 Member Function Documentation

**6.271.4.1** virtual cms::Destination\* cms::Destination::clone () const [pure virtual]

Creates a new instance of this destination type that is a copy of this one, and returns it.

#### Returns:

cloned copy of this object

Implemented in **activemq::commands::ActiveMQQueue** (p. 420),  
**activemq::commands::ActiveMQTempQueue** (p. 524), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 549), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 599).

**6.271.4.2** virtual void cms::Destination::copy (const cms::Destination & *source*)  
[pure virtual]

Copies the contents of the given **Destination** (p. 1480) object to this one.

#### Parameters:

*source* The source **Destination** (p. 1480) object.

Implemented in **activemq::commands::ActiveMQQueue** (p. 420),  
**activemq::commands::ActiveMQTempQueue** (p. 524), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 549), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 599).

**6.271.4.3** virtual const CMSProperties& cms::Destination::getCMSProperties ()  
const [pure virtual]

Retrieve any properties that might be part of the destination that was specified. This is a deviation from the JMS spec but necessary due to C++ restrictions.

#### Returns:

A {const} reference to a **CMSProperties** (p. 1036) object.

Implemented in **activemq::commands::ActiveMQQueue** (p. 421),  
**activemq::commands::ActiveMQTempQueue** (p. 525), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 550), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 600).

**6.271.4.4** virtual DestinationType cms::Destination::getDestinationType () const  
[pure virtual]

Retrieve the **Destination** (p. 1480) Type for this **Destination** (p. 1480).

**Returns:**

The **Destination** (p. 1480) Type

Implemented in **activemq::commands::ActiveMQQueue** (p. 422),  
**activemq::commands::ActiveMQTempQueue** (p. 526), **ac-**  
**tivemq::commands::ActiveMQTempTopic** (p. 551), and **ac-**  
**tivemq::commands::ActiveMQTopic** (p. 601).

The documentation for this class was generated from the following file:

- `src/main/cms/`**Destination.h**

## 6.272 activemq::commands::ActiveMQDestination::DestinationFilter Struct Reference

```
#include <src/main/activemq/commands/ActiveMQDestination.h>
```

### Static Public Attributes

- static const std::string **ANY\_CHILD**
- static const std::string **ANY\_DESCENDENT**

### 6.272.1 Field Documentation

**6.272.1.1** const std::string  
activemq::commands::ActiveMQDestination::DestinationFilter::ANY\_  
CHILD [static]

**6.272.1.2** const std::string  
activemq::commands::ActiveMQDestination::DestinationFilter::ANY\_  
DESCENDENT [static]

The documentation for this struct was generated from the following file:

- src/main/activemq/commands/**ActiveMQDestination.h**

## 6.273 activemq::commands::DestinationInfo Class Reference

#include <src/main/activemq/commands/DestinationInfo.h> Inheritance diagram for activemq::commands::DestinationInfo:

### Public Member Functions

- **DestinationInfo** ()
- virtual **~DestinationInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **DestinationInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConnectionId** > & **getConnectionId** () const
- virtual **Pointer**< **ConnectionId** > & **getConnectionId** ()
- virtual void **setConnectionId** (const **Pointer**< **ConnectionId** > &connectionId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual unsigned char **getOperationType** () const
- virtual void **setOperationType** (unsigned char operationType)
- virtual long long **getTimeout** () const
- virtual void **setTimeout** (long long timeout)
- virtual const std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** () const
- virtual std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** ()
- virtual void **setBrokerPath** (const std::vector< **decaf::lang::Pointer**< **BrokerId** > > &brokerPath)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*



## Static Public Attributes

- static const unsigned char **ID\_DESTINATIONINFO** = 8

## Protected Member Functions

- **DestinationInfo** (const **DestinationInfo** &)
- **DestinationInfo** & **operator=** (const **DestinationInfo** &)

## Protected Attributes

- **Pointer**< **ConnectionId** > **connectionId**
- **Pointer**< **ActiveMQDestination** > **destination**
- unsigned char **operationType**
- long long **timeout**
- std::vector< **decaf::lang::Pointer**< **BrokerId** > > **brokerPath**

## 6.273.1 Constructor & Destructor Documentation

**6.273.1.1** **activemq::commands::DestinationInfo::DestinationInfo** (const **DestinationInfo** &) [inline, protected]

**6.273.1.2** **activemq::commands::DestinationInfo::DestinationInfo** ()

**6.273.1.3** **virtual** **activemq::commands::DestinationInfo::~~DestinationInfo** () [virtual]

## 6.273.2 Member Function Documentation

**6.273.2.1** **virtual** **DestinationInfo\*** **activemq::commands::DestinationInfo::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.273.2.2** **virtual void** **activemq::commands::DestinationInfo::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.273.2.3** `virtual bool activemq::commands::DestinationInfo::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.273.2.4** `virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::DestinationInfo::getBrokerPath ()` [virtual]

**6.273.2.5** `virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::DestinationInfo::getBrokerPath () const` [virtual]

**6.273.2.6** `virtual Pointer<ConnectionId>& activemq::commands::DestinationInfo::getConnectionId ()` [virtual]

**6.273.2.7** `virtual const Pointer<ConnectionId>& activemq::commands::DestinationInfo::getConnectionId () const` [virtual]

**6.273.2.8** `virtual unsigned char activemq::commands::DestinationInfo::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.273.2.9    virtual Pointer<ActiveMQDestination>& activemq::commands::DestinationInfo::getDestination ()  
[virtual]
- 6.273.2.10   virtual const Pointer<ActiveMQDestination>& activemq::commands::DestinationInfo::getDestination () const  
[virtual]
- 6.273.2.11   virtual unsigned char activemq::commands::DestinationInfo::getOperationType ()  
const [virtual]
- 6.273.2.12   virtual long long activemq::commands::DestinationInfo::getTimeout ()  
const [virtual]
- 6.273.2.13   DestinationInfo& activemq::commands::DestinationInfo::operator=  
(const DestinationInfo &) [inline, protected]
- 6.273.2.14   virtual void activemq::commands::DestinationInfo::setBrokerPath  
(const std::vector< decaf::lang::Pointer< BrokerId > > & *brokerPath*)  
[virtual]
- 6.273.2.15   virtual void activemq::commands::DestinationInfo::setConnectionId  
(const Pointer< ConnectionId > & *connectionId*) [virtual]
- 6.273.2.16   virtual void activemq::commands::DestinationInfo::setDestination  
(const Pointer< ActiveMQDestination > & *destination*) [virtual]
- 6.273.2.17   virtual void activemq::commands::DestinationInfo::setOperationType  
(unsigned char *operationType*) [virtual]
- 6.273.2.18   virtual void activemq::commands::DestinationInfo::setTimeout (long  
long *timeout*) [virtual]
- 6.273.2.19   virtual std::string activemq::commands::DestinationInfo::toString ()  
const [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

- 6.273.2.20    virtual Pointer<Command> activemq::commands::DestinationInfo::visit  
(activemq::state::CommandVisitor \* *visitor*) throw (  
exceptions::ActiveMQException ) [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.273.3 Field Documentation**

- 6.273.3.1** `std::vector< decaf::lang::Pointer<BrokerId> >`  
`activemq::commands::DestinationInfo::brokerPath` [protected]
- 6.273.3.2** `Pointer<ConnectionId>` `activemq::commands::DestinationInfo::connectionId`  
[protected]
- 6.273.3.3** `Pointer<ActiveMQDestination>` `activemq::commands::DestinationInfo::destination`  
[protected]
- 6.273.3.4** `const unsigned char` `activemq::commands::DestinationInfo::ID_DESTINATIONINFO = 8` [static]
- 6.273.3.5** `unsigned char` `activemq::commands::DestinationInfo::operationType`  
[protected]
- 6.273.3.6** `long long` `activemq::commands::DestinationInfo::timeout` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/DestinationInfo.h`

## 6.274 activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1489).

#include <src/main/activemq/wireformat/openwire/marshal/v2/DestinationInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller:

### Public Member Functions

- **DestinationInfoMarshaller** ()
- virtual **~DestinationInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.274.1 Detailed Description

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1489). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.274.2 Constructor & Destructor Documentation

**6.274.2.1** `activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::DestinationInfoM`  
`() [inline]`

**6.274.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::~~DestinationInfoM`  
`() [inline, virtual]`

## 6.274.3 Member Function Documentation

**6.274.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.274.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.274.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.274.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.274.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.274.3.6** `virtual void activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 689).

**6.274.3.7** `virtual void activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 690).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/DestinationInfoMarshaller.h`



## 6.275 activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1493).

#include <src/main/activemq/wireformat/openwire/marshal/v3/DestinationInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller:

### Public Member Functions

- **DestinationInfoMarshaller** ()
- virtual **~DestinationInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.275.1 Detailed Description

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1493). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.275.2 Constructor & Destructor Documentation

**6.275.2.1** `activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::DestinationInfoM`  
`() [inline]`

**6.275.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::~~DestinationInfoM`  
`() [inline, virtual]`

## 6.275.3 Member Function Documentation

**6.275.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.275.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.275.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.275.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.275.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.275.3.6** virtual void activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.275.3.7** virtual void activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**DestinationInfoMarshaller.h**

## 6.276 activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1497).

#include <src/main/activemq/wireformat/openwire/marshal/v4/DestinationInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller:

### Public Member Functions

- **DestinationInfoMarshaller** ()
- virtual **~DestinationInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.276.1 Detailed Description

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1497). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.276.2 Constructor & Destructor Documentation

**6.276.2.1** `activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::DestinationInfoM`  
`() [inline]`

**6.276.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::~~DestinationInfoM`  
`() [inline, virtual]`

## 6.276.3 Member Function Documentation

**6.276.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.276.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.276.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.276.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.276.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.276.3.6** virtual void activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.276.3.7** virtual void activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**DestinationInfoMarshaller.h**



## 6.277 activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1501).

#include <src/main/activemq/wireformat/openwire/marshal/v1/DestinationInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller:

### Public Member Functions

- **DestinationInfoMarshaller** ()
- virtual **~DestinationInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.277.1 Detailed Description

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1501). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.277.2 Constructor & Destructor Documentation

**6.277.2.1** `activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::DestinationInfoM`  
`() [inline]`

**6.277.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::~~DestinationInfoM`  
`() [inline, virtual]`

## 6.277.3 Member Function Documentation

**6.277.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.277.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.277.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.277.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.277.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.277.3.6** virtual void activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.277.3.7** virtual void activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**DestinationInfoMarshaller.h**

## 6.278 activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1505).

#include <src/main/activemq/wireformat/openwire/marshal/v5/DestinationInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller:

### Public Member Functions

- **DestinationInfoMarshaller** ()
- virtual ~**DestinationInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.278.1 Detailed Description

Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1505). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.278.2 Constructor & Destructor Documentation

**6.278.2.1** `activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::DestinationInfoM`  
`() [inline]`

**6.278.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::~~DestinationInfoM`  
`() [inline, virtual]`

## 6.278.3 Member Function Documentation

**6.278.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.278.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.278.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 679).

**6.278.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 680).

**6.278.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 681).

**6.278.3.6** virtual void activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.278.3.7** virtual void activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**DestinationInfoMarshaller.h**



## 6.279 activemq::cmsutil::DestinationResolver Class Reference

Resolves a CMS destination name to a `Destination`.

#include <src/main/activemq/cmsutil/DestinationResolver.h> Inheritance diagram for `activemq::cmsutil::DestinationResolver`:

### Public Member Functions

- virtual `~DestinationResolver()`
- virtual void `init(ResourceLifecycleManager *mgr)=0`  
*Initializes this destination resolver for use.*
- virtual void `destroy()`=0  
*Destroys any allocated resources.*
- virtual `cms::Destination * resolveDestinationName(cms::Session *session, const std::string &destName, bool pubSubDomain)=0` throw ( `cms::CMSException` )  
*Resolves the given name to a destination.*

### 6.279.1 Detailed Description

Resolves a CMS destination name to a `Destination`.

### 6.279.2 Constructor & Destructor Documentation

- 6.279.2.1** virtual `activemq::cmsutil::DestinationResolver::~~DestinationResolver()` [inline, virtual]

### 6.279.3 Member Function Documentation

- 6.279.3.1** virtual void `activemq::cmsutil::DestinationResolver::destroy()` [pure virtual]

Destroys any allocated resources.

Implemented in `activemq::cmsutil::DynamicDestinationResolver` (p. 1568).

- 6.279.3.2** virtual void `activemq::cmsutil::DestinationResolver::init(ResourceLifecycleManager *mgr)` [pure virtual]

Initializes this destination resolver for use. Ensures that any previously allocated resources are first destroyed (e.g. calls `destroy()` (p. 1509)).

#### Parameters:

*mgr* the resource lifecycle manager.

Implemented in `activemq::cmsutil::DynamicDestinationResolver` (p. 1569).

**6.279.3.3** `virtual cms::Destination* activemq::cmsutil::DestinationResolver::resolveDestinationName (cms::Session * session, const std::string & destName, bool pubSubDomain) throw ( cms::CMSException )` [pure virtual]

Resolves the given name to a destination. If `pubSubDomain` is true, a topic will be returned, otherwise a queue will be returned.

**Parameters:**

*session* the session for which to retrieve resolve the destination.

*destName* the name to be resolved.

*pubSubDomain* If true, the name will be resolved to a Topic, otherwise a Queue.

**Returns:**

the resolved destination

**Exceptions:**

*cms::CMSException* (p. 1031) if resolution failed.

Implemented in `activemq::cmsutil::DynamicDestinationResolver` (p. 1569).

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/DestinationResolver.h`

## 6.280 activemq::commands::DiscoveryEvent Class Reference

#include <src/main/activemq/commands/DiscoveryEvent.h> Inheritance diagram for activemq::commands::DiscoveryEvent:

### Public Member Functions

- **DiscoveryEvent** ()
- virtual **~DiscoveryEvent** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **DiscoveryEvent** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getServiceName** () const
- virtual std::string & **getServiceName** ()
- virtual void **setServiceName** (const std::string &serviceName)
- virtual const std::string & **getBrokerName** () const
- virtual std::string & **getBrokerName** ()
- virtual void **setBrokerName** (const std::string &brokerName)

### Static Public Attributes

- static const unsigned char **ID\_DISCOVERYEVENT** = 40

### Protected Member Functions

- **DiscoveryEvent** (const **DiscoveryEvent** &)
- **DiscoveryEvent** & **operator=** (const **DiscoveryEvent** &)

### Protected Attributes

- std::string **serviceName**
- std::string **brokerName**

## 6.280.1 Constructor & Destructor Documentation

**6.280.1.1** `activemq::commands::DiscoveryEvent::DiscoveryEvent (const  
DiscoveryEvent &) [inline, protected]`

**6.280.1.2** `activemq::commands::DiscoveryEvent::DiscoveryEvent ()`

**6.280.1.3** `virtual activemq::commands::DiscoveryEvent::~~DiscoveryEvent ()  
[virtual]`

## 6.280.2 Member Function Documentation

**6.280.2.1** `virtual DiscoveryEvent* ac-  
tivemq::commands::DiscoveryEvent::cloneDataStructure ()  
const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.280.2.2** `virtual void activemq::commands::DiscoveryEvent::copyDataStructure  
(const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

**6.280.2.3** `virtual bool activemq::commands::DiscoveryEvent::equals (const  
DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

- 6.280.2.4 `virtual std::string& activemq::commands::DiscoveryEvent::getBrokerName ()`  
[virtual]
- 6.280.2.5 `virtual const std::string& activemq::commands::DiscoveryEvent::getBrokerName ()`  
const [virtual]
- 6.280.2.6 `virtual unsigned char activemq::commands::DiscoveryEvent::getDataStructureType () const`  
[virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

- 6.280.2.7 `virtual std::string& activemq::commands::DiscoveryEvent::getServiceName ()`  
[virtual]
- 6.280.2.8 `virtual const std::string& activemq::commands::DiscoveryEvent::getServiceName ()`  
const [virtual]
- 6.280.2.9 `DiscoveryEvent& activemq::commands::DiscoveryEvent::operator=`  
(const DiscoveryEvent &) [inline, protected]
- 6.280.2.10 `virtual void activemq::commands::DiscoveryEvent::setBrokerName`  
(const std::string & *brokerName*) [virtual]
- 6.280.2.11 `virtual void activemq::commands::DiscoveryEvent::setServiceName`  
(const std::string & *serviceName*) [virtual]
- 6.280.2.12 `virtual std::string activemq::commands::DiscoveryEvent::toString ()`  
const [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSet** (p. 718).

### 6.280.3 Field Documentation

- 6.280.3.1 `std::string activemq::commands::DiscoveryEvent::brokerName`  
[protected]
- 6.280.3.2 `const unsigned char activemq::commands::DiscoveryEvent::ID_ -  
DISCOVERYEVENT = 40` [static]
- 6.280.3.3 `std::string activemq::commands::DiscoveryEvent::serviceName`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/DiscoveryEvent.h`

## 6.281 activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller Class Reference

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1515).

#include <src/main/activemq/wireformat/openwire/marshal/v2/DiscoveryEventMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller:

### Public Member Functions

- **DiscoveryEventMarshaller** ()
- virtual **~DiscoveryEventMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.281.1 Detailed Description

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1515). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.281.2 Constructor & Destructor Documentation

**6.281.2.1** `activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::DiscoveryEventM  
( ) [inline]`

**6.281.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::~~DiscoveryEvent  
( ) [inline, virtual]`

## 6.281.3 Member Function Documentation

**6.281.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.281.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::getDataStructureT  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.281.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.281.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.281.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.281.3.6** virtual void activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.281.3.7** virtual void activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/DiscoveryEventMarshaller.h

## 6.282 activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller Class Reference

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1519).

#include <src/main/activemq/wireformat/openwire/marshal/v3/DiscoveryEventMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller:

### Public Member Functions

- **DiscoveryEventMarshaller** ()
- virtual **~DiscoveryEventMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.282.1 Detailed Description

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1519). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.282.2 Constructor & Destructor Documentation

**6.282.2.1** `activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::DiscoveryEventM`  
`() [inline]`

**6.282.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::~~DiscoveryEvent`  
`() [inline, virtual]`

## 6.282.3 Member Function Documentation

**6.282.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.282.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.282.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.282.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.282.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.282.3.6** virtual void activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.282.3.7** virtual void activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/DiscoveryEventMarshaller.h

## 6.283 activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller Class Reference

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1523).

#include <src/main/activemq/wireformat/openwire/marshal/v4/DiscoveryEventMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller:

### Public Member Functions

- **DiscoveryEventMarshaller** ()
- virtual **~DiscoveryEventMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.283.1 Detailed Description

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1523). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.283.2 Constructor & Destructor Documentation

**6.283.2.1** `activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::DiscoveryEventM`  
`() [inline]`

**6.283.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::~~DiscoveryEvent`  
`() [inline, virtual]`

## 6.283.3 Member Function Documentation

**6.283.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.283.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.283.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.283.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.283.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.283.3.6** virtual void activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.283.3.7** virtual void activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/DiscoveryEventMarshaller.h

## 6.284 activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller Class Reference

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1527).

#include <src/main/activemq/wireformat/openwire/marshal/v5/DiscoveryEventMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller:

### Public Member Functions

- **DiscoveryEventMarshaller** ()
- virtual **~DiscoveryEventMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.284.1 Detailed Description

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1527). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.284.2 Constructor & Destructor Documentation

**6.284.2.1** `activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::DiscoveryEventM`  
`() [inline]`

**6.284.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::~~DiscoveryEvent`  
`() [inline, virtual]`

## 6.284.3 Member Function Documentation

**6.284.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.284.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.284.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.284.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.284.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.284.3.6** virtual void activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.284.3.7** virtual void activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/DiscoveryEventMarshaller.h

## 6.285 activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller Class Reference

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1531).

#include <src/main/activemq/wireformat/openwire/marshal/v1/DiscoveryEventMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller:

### Public Member Functions

- **DiscoveryEventMarshaller** ()
- virtual **~DiscoveryEventMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.285.1 Detailed Description

Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1531). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.285.2 Constructor & Destructor Documentation

**6.285.2.1** `activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::DiscoveryEventM  
( ) [inline]`

**6.285.2.2** `virtual  
activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::~~DiscoveryEvent  
( ) [inline, virtual]`

## 6.285.3 Member Function Documentation

**6.285.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.285.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::getDataStructureT  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.285.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.285.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.285.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.285.3.6** virtual void activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.285.3.7** virtual void activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/DiscoveryEventMarshaller.h

## 6.286 activemq::core::DispatchData Class Reference

Simple POCO that contains the information necessary to route a message to a specified consumer.

```
#include <src/main/activemq/core/DispatchData.h>
```

### Public Member Functions

- **DispatchData** ()
- **DispatchData** (const decaf::lang::Pointer< commands::ConsumerId > &consumer, const decaf::lang::Pointer< commands::Message > &message)
- const decaf::lang::Pointer< commands::ConsumerId > & **getConsumerId** ()
- const decaf::lang::Pointer< commands::Message > & **getMessage** ()

### 6.286.1 Detailed Description

Simple POCO that contains the information necessary to route a message to a specified consumer.

### 6.286.2 Constructor & Destructor Documentation

**6.286.2.1** **activemq::core::DispatchData::DispatchData** () [inline]

**6.286.2.2** **activemq::core::DispatchData::DispatchData** (const decaf::lang::Pointer< commands::ConsumerId > & *consumer*, const decaf::lang::Pointer< commands::Message > & *message*) [inline]

### 6.286.3 Member Function Documentation

**6.286.3.1** const decaf::lang::Pointer<commands::ConsumerId>& **activemq::core::DispatchData::getConsumerId** () [inline]

**6.286.3.2** const decaf::lang::Pointer<commands::Message>& **activemq::core::DispatchData::getMessage** () [inline]

The documentation for this class was generated from the following file:

- src/main/activemq/core/**DispatchData.h**

## 6.287 activemq::core::Dispatcher Class Reference

Interface for an object responsible for dispatching messages to consumers.

#include <src/main/activemq/core/Dispatcher.h> Inheritance diagram for activemq::core::Dispatcher:

### Public Member Functions

- virtual `~Dispatcher()`
- virtual void **dispatch** (const `Pointer< MessageDispatch >` &message)=0  
*Dispatches a message to a particular consumer.*

#### 6.287.1 Detailed Description

Interface for an object responsible for dispatching messages to consumers.

#### 6.287.2 Constructor & Destructor Documentation

**6.287.2.1** virtual `activemq::core::Dispatcher::~~Dispatcher()` [inline, virtual]

#### 6.287.3 Member Function Documentation

**6.287.3.1** virtual void `activemq::core::Dispatcher::dispatch` (const `Pointer< MessageDispatch >` & *message*) [pure virtual]

Dispatches a message to a particular consumer.

#### Parameters:

*message* - the message to be dispatched.

Implemented in `activemq::core::ActiveMQConsumer` (p. 267), and `activemq::core::ActiveMQSession` (p. 453).

The documentation for this class was generated from the following file:

- `src/main/activemq/core/Dispatcher.h`

## 6.288 decaf::lang::Double Class Reference

#include <src/main/decaf/lang/Double.h> Inheritance diagram for decaf::lang::Double:

### Public Member Functions

- **Double** (double value)
- **Double** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual ~**Double** ()
- virtual int **compareTo** (const **Double** &d) const  
*Compares this **Double** (p. 1537) instance with another.*
- bool **equals** (const **Double** &d) const
- virtual bool **operator==** (const **Double** &d) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Double** &d) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const double &d) const  
*Compares this **Double** (p. 1537) instance with another.*
- bool **equals** (const double &d) const
- virtual bool **operator==** (const double &d) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const double &d) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const

*Answers the long value which the receiver represents.*

- bool **isInfinite** () const
- bool **isNaN** () const

## Static Public Member Functions

- static int **compare** (double d1, double d2)  
*Compares the two specified double values.*
- static long long **doubleToLongBits** (double value)  
*Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "double format" bit layout.*
- static long long **doubleToRawLongBits** (double value)  
*Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "double format" bit layout, preserving Not-a-Number (NaN) values.*
- static bool **isInfinite** (double value)
- static bool **isNaN** (double value)
- static double **longBitsToDouble** (long long bits)  
*Returns the double value corresponding to a given bit representation.*
- static double **parseDouble** (const std::string &value) throw (exceptions::NumberFormatException)  
*Returns a new double initialized to the value represented by the specified string, as performed by the `valueOf` method of class **Double** (p. 1537).*
- static std::string **toHexString** (double value)  
*Returns a hexadecimal string representation of the double argument.*
- static std::string **toString** (double value)  
*Returns a string representation of the double argument.*
- static **Double** **valueOf** (double value)  
*Returns a **Double** (p. 1537) instance representing the specified double value.*
- static **Double** **valueOf** (const std::string &value) throw (exceptions::NumberFormatException)  
*Returns a **Double** (p. 1537) instance that wraps a primitive double which is parsed from the string value passed.*

## Static Public Attributes

- static const int **SIZE** = 64  
*The size in bits of the primitive int type.*
- static const double **MAX\_VALUE**  
*The maximum value that the primitive type can hold.*

- static const double **MIN\_VALUE**  
*The minimum value that the primitive type can hold.*
- static const double **NaN**  
*Constant for the Not a **Number** (p. 2432) Value.*
- static const double **POSITIVE\_INFINITY**  
*Constant for Positive Infinity.*
- static const double **NEGATIVE\_INFINITY**  
*Constant for Negative Infinity.*

## 6.288.1 Constructor & Destructor Documentation

### 6.288.1.1 decaf::lang::Double::Double (double *value*)

#### Parameters:

*value* - the primitive type to wrap

### 6.288.1.2 decaf::lang::Double::Double (const std::string & *value*) throw ( exceptions::NumberFormatException )

#### Parameters:

*value* - the string to convert to a primitive type to wrap

### 6.288.1.3 virtual decaf::lang::Double::~~Double () [inline, virtual]

## 6.288.2 Member Function Documentation

### 6.288.2.1 virtual unsigned char decaf::lang::Double::byteValue () const [inline, virtual]

Answers the byte value which the receiver represents.

#### Returns:

byte the value of the receiver.

Reimplemented from **decaf::lang::Number** (p. 2432).

### 6.288.2.2 static int decaf::lang::Double::compare (double *d1*, double *d2*) [static]

Compares the two specified double values. The sign of the integer value returned is the same as that of the integer that would be returned by the call: new Double(d1).compareTo(new Double(d2))

**Parameters:**

*d1* - the first double to compare  
*d2* - the second double to compare

**Returns:**

the value 0 if d1 is numerically equal to d2; a value less than 0 if d1 is numerically less than d2; and a value greater than 0 if d1 is numerically greater than d2.

**6.288.2.3 virtual int decaf::lang::Double::compareTo (const double & d) const**  
[virtual]

Compares this **Double** (p. 1537) instance with another.

**Parameters:**

*d* - the **Double** (p. 1537) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable< double >** (p. 1083).

**6.288.2.4 virtual int decaf::lang::Double::compareTo (const Double & d) const**  
[virtual]

Compares this **Double** (p. 1537) instance with another.

**Parameters:**

*d* - the **Double** (p. 1537) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable< Double >** (p. 1083).

**6.288.2.5 static long long decaf::lang::Double::doubleToLongBits (double value)**  
[static]

Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "double format" bit layout. Bit 63 (the bit that is selected by the mask 0x8000000000000000L) represents the sign of the floating-point number. Bits 62-52 (the bits that are selected by the mask 0x7ff0000000000000L) represent the exponent. Bits 51-0 (the bits that are selected by the mask 0x000fffffffffffffL) represent the significand (sometimes called the mantissa) of the floating-point number.



If the argument is positive infinity, the result is 0x7ff0000000000000L. If the argument is negative infinity, the result is 0xfff0000000000000L. If the argument is NaN, the result is 0x7ff8000000000000L.

In all cases, the result is a long integer that, when given to the longBitsToDouble(long) method, will produce a floating-point value the same as the argument to doubleToLongBits (except all NaN values are collapsed to a single "canonical" NaN value).

**Parameters:**

*value* - double to be converted

**Returns:**

the long long bits that make up the double

**6.288.2.6 static long long decaf::lang::Double::doubleToRawLongBits (double *value*) [static]**

Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "double format" bit layout, preserving Not-a-Number (NaN) values. Bit 63 (the bit that is selected by the mask 0x8000000000000000LL) represents the sign of the floating-point number. Bits 62-52 (the bits that are selected by the mask 0x7ff0000000000000L) represent the exponent. Bits 51-0 (the bits that are selected by the mask 0x000fffffffffffL) represent the significand (sometimes called the mantissa) of the floating-point number.

If the argument is positive infinity, the result is 0x7ff0000000000000LL. If the argument is negative infinity, the result is 0xfff0000000000000LL. If the argument is NaN, the result is the long integer representing the actual NaN value. Unlike the doubleToLongBits method, doubleToRawLongBits does not collapse all the bit patterns encoding a NaN to a single "canonical" NaN value.

In all cases, the result is a long integer that, when given to the longBitsToDouble(long) method, will produce a floating-point value the same as the argument to doubleToRawLongBits.

**Parameters:**

*value* - double to be converted

**Returns:**

the long long bits that make up the double

**6.288.2.7 virtual double decaf::lang::Double::doubleValue () const [inline, virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.288.2.8** `bool decaf::lang::Double::equals (const double & d) const` [inline, virtual]

**Parameters:**

*d* - the **Double** (p. 1537) object to compare against.

**Returns:**

true if the two **Double** (p. 1537) Objects have the same value.

Implements **decaf::lang::Comparable**< **double** > (p. 1084).

**6.288.2.9** `bool decaf::lang::Double::equals (const Double & d) const` [inline, virtual]

**Parameters:**

*d* - the **Double** (p. 1537) object to compare against.

**Returns:**

true if the two **Double** (p. 1537) Objects have the same value.

Implements **decaf::lang::Comparable**< **Double** > (p. 1084).

**6.288.2.10** `virtual float decaf::lang::Double::floatValue () const` [inline, virtual]

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.288.2.11** `virtual int decaf::lang::Double::intValue () const` [inline, virtual]

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.288.2.12** `static bool decaf::lang::Double::isInfinite (double value)` [static]

**Parameters:**

*value* - The double to check.

**Returns:**

true if the double is equal to infinity.

**6.288.2.13** `bool decaf::lang::Double::isInfinite () const`**Returns:**

true if the double is equal to positive infinity.

**6.288.2.14** `static bool decaf::lang::Double::isNaN (double value) [static]`**Parameters:**

*value* - The double to check.

**Returns:**

true if the double is equal to NaN.

**6.288.2.15** `bool decaf::lang::Double::isNaN () const`**Returns:**

true if the double is equal to NaN.

**6.288.2.16** `static double decaf::lang::Double::longBitsToDouble (long long bits) [static]`

Returns the double value corresponding to a given bit representation. The argument is considered to be a representation of a floating-point value according to the IEEE 754 floating-point "double format" bit layout.

If the argument is 0x7ff0000000000000L, the result is positive infinity. If the argument is 0xfff0000000000000L, the result is negative infinity. If the argument is any value in the range 0x7ff0000000000001L through 0x7fffffffffffffffL or in the range 0xfff0000000000001L through 0xfffffffffffffffL, the result is a NaN. No IEEE 754 floating-point operation provided by C++ can distinguish between two NaN values of the same type with different bit patterns. Distinct values of NaN are only distinguishable by use of the **Double.doubleToRawLongBits** (p. 1541) method.

**Parameters:**

*bits* - the long long bits to convert to double

**Returns:**

the double converted from the bits

**6.288.2.17** `virtual long long decaf::lang::Double::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.288.2.18** `virtual bool decaf::lang::Double::operator< (const double & d) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*d* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< double >` (p.1084).

**6.288.2.19** `virtual bool decaf::lang::Double::operator< (const Double & d) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*d* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< Double >` (p.1084).

**6.288.2.20** `virtual bool decaf::lang::Double::operator== (const double & d) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*d* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< double >` (p.1085).

**6.288.2.21** `virtual bool decaf::lang::Double::operator== (const Double & d) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*d* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable**< **Double** > (p.1085).

**6.288.2.22** static double decaf::lang::Double::parseDouble (const std::string *value*)  
throw ( exceptions::NumberFormatException ) [static]

Returns a new double initialized to the value represented by the specified string, as performed by the valueOf method of class **Double** (p.1537).

**Parameters:**

*value* - The string to parse to an double

**Returns:**

a double parsed from the passed string

**Exceptions:**

*NumberFormatException*

**6.288.2.23** virtual short decaf::lang::Double::shortValue () const [inline, virtual]

Answers the short value which the receiver represents.

**Returns:**

short the value of the receiver.

Reimplemented from **decaf::lang::Number** (p.2434).

**6.288.2.24** static std::string decaf::lang::Double::toHexString (double *value*)  
[static]

Returns a hexadecimal string representation of the double argument. All characters mentioned below are ASCII characters.

\* If the argument is NaN, the result is the string "NaN". \* Otherwise, the result is a string that represents the sign and magnitude (absolute value) of the argument. If the sign is negative, the first character of the result is '-'; if the sign is positive, no sign character appears in the result. As for the magnitude m: o If m is infinity, it is represented by the string "Infinity"; thus, positive infinity produces the result "Infinity" and negative infinity produces the result "-Infinity". o If m is zero, it is represented by the string "0x0.0p0"; thus, negative zero produces the result "-0x0.0p0" and positive zero produces the result "0x0.0p0". o If m is a double value with a normalized representation, substrings are used to represent the significand and exponent fields. The significand is represented by the characters "0x1." followed by a lowercase hexadecimal representation of the rest of the significand as a fraction. Trailing zeros in the hexadecimal representation are removed unless all the digits are zero, in which case a single zero is used. Next, the exponent is represented by "p" followed by a decimal string of the unbiased exponent as if produced by a call to **Integer.toString** (p.1774) on the exponent value. o If m is a double value with a subnormal representation, the significand is represented by the characters "0x0." followed

by a hexadecimal representation of the rest of the significand as a fraction. Trailing zeros in the hexadecimal representation are removed. Next, the exponent is represented by "p-126". Note that there must be at least one nonzero digit in a subnormal significand.

**Parameters:**

*value* - The double to convert to a string

**Returns:**

the Hex formatted double string.

### 6.288.2.25 static std::string decaf::lang::Double::toString (double *value*) [static]

Returns a string representation of the double argument. All characters mentioned below are ASCII characters.

If the argument is NaN, the result is the string "NaN". Otherwise, the result is a string that represents the sign and magnitude (absolute value) of the argument. If the sign is negative, the first character of the result is '-'; if the sign is positive, no sign character appears in the result. As for the magnitude m:

- o If m is infinity, it is represented by the characters "Infinity"; thus, positive infinity produces the result "Infinity" and negative infinity produces the result "-Infinity".
- o If m is zero, it is represented by the characters "0.0"; thus, negative zero produces the result "-0.0" and positive zero produces the result "0.0".
- o If m is greater than or equal to 10<sup>-3</sup> but less than 10<sup>7</sup>, then it is represented as the integer part of m, in decimal form with no leading zeroes, followed by '.', followed by one or more decimal digits representing the fractional part of m.
- o If m is less than 10<sup>-3</sup> or greater than or equal to 10<sup>7</sup>, then it is represented in so-called "computerized scientific notation." Let n be the unique integer such that 10<sup>n</sup> ≤ m < 10<sup>n+1</sup>; then let a be the mathematically exact quotient of m and 10<sup>n</sup> so that 1 ≤ a < 10. The magnitude is then represented as the integer part of a, as a single decimal digit, followed by '.', followed by decimal digits representing the fractional part of a, followed by the letter 'E', followed by a representation of n as a decimal integer, as produced by the method **Integer.toString(int)** (p. 1774).

**Parameters:**

*value* - The double to convert to a string

**Returns:**

the formatted double string.

### 6.288.2.26 std::string decaf::lang::Double::toString () const

**Returns:**

this **Double** (p. 1537) Object as a String Representation

### 6.288.2.27 static Double decaf::lang::Double::valueOf (const std::string & *value*) throw ( exceptions::NumberFormatException ) [static]

Returns a **Double** (p. 1537) instance that wraps a primitive double which is parsed from the string value passed.

**Parameters:**

*value* - the string to parse

**Returns:**

a new **Double** (p. 1537) instance wrapping the double parsed from value

**Exceptions:**

*NumberFormatException* on error.

**6.288.2.28 static Double decaf::lang::Double::valueOf (double value) [static]**

Returns a **Double** (p. 1537) instance representing the specified double value.

**Parameters:**

*value* - double to wrap

**Returns:**

new **Double** (p. 1537) instance wrapping the primitive value

**6.288.3 Field Documentation****6.288.3.1 const double decaf::lang::Double::MAX\_VALUE [static]**

The maximum value that the primitive type can hold.

**6.288.3.2 const double decaf::lang::Double::MIN\_VALUE [static]**

The minimum value that the primitive type can hold.

**6.288.3.3 const double decaf::lang::Double::NaN [static]**

Constant for the Not a **Number** (p. 2432) Value.

**6.288.3.4 const double decaf::lang::Double::NEGATIVE\_INFINITY [static]**

Constant for Negative Infinity.

**6.288.3.5 const double decaf::lang::Double::POSITIVE\_INFINITY [static]**

Constant for Positive Infinity.

**6.288.3.6 const int decaf::lang::Double::SIZE = 64 [static]**

The size in bits of the primitive int type.

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**Double.h**

## 6.289 decaf::internal::nio::DoubleArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/DoubleArrayBuffer.h> Inheritance diagram for decaf::internal::nio::DoubleArrayBuffer:

### Public Member Functions

- **DoubleArrayBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **DoubleArrayBuffer** (p. 1548) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **DoubleArrayBuffer** (double \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **DoubleArrayBuffer** (p. 1548) object that wraps the given array.*
- **DoubleArrayBuffer** (ByteArrayPerspective &array, std::size\_t offset, std::size\_t length, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset.*
- **DoubleArrayBuffer** (const DoubleArrayBuffer &other)  
*Create a **DoubleArrayBuffer** (p. 1548) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~**DoubleArrayBuffer** ()
- virtual double \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the double array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual DoubleBuffer \* **asReadOnlyBuffer** () const  
*Creates a new, read-only double buffer that shares this buffer's content.*
- virtual DoubleBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual DoubleBuffer \* **duplicate** ()  
*Creates a new double buffer that shares this buffer's content.*
- virtual double **get** () throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*



- virtual double **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- virtual bool **hasArray** () const  
*Tells whether or not this buffer is backed by an accessible double array.*
- virtual bool **isReadOnly** () const  
*Tells whether or not this buffer is read-only.*
- virtual DoubleBuffer & **put** (double value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the current position, and then increments the position.*
- virtual DoubleBuffer & **put** (std::size\_t index, double value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the given index.*
- virtual DoubleBuffer \* **slice** () const  
*Creates a new DoubleBuffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)  
*Sets this **ByteArrayListBuffer** (p. 870) as Read-Only.*

## 6.289.1 Constructor & Destructor Documentation

### 6.289.1.1 decaf::internal::nio::DoubleArrayBuffer::DoubleArrayBuffer (std::size\_t capacity, bool readOnly = false)

Creates a **DoubleArrayBuffer** (p. 1548) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

#### Parameters:

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

### 6.289.1.2 decaf::internal::nio::DoubleArrayBuffer::DoubleArrayBuffer (double \* array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **DoubleArrayBuffer** (p. 1548) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

**Parameters:**

*array* - array to wrap  
*offset* - the position that is this buffers start pos.  
*capacity* - size of the array, this is the limit we read and write to.  
*readOnly* - should this buffer be read-only, default as false

**Exceptions:**

*NullPointerException* if buffer is NULL

**6.289.1.3** `decaf::internal::nio::DoubleArrayBuffer::DoubleArrayBuffer (ByteArrayPerspective & array, std::size_t offset, std::size_t length, bool readOnly = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )`

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset. The capacity and limit of the new **DoubleArrayBuffer** (p. 1548) will be that of the remaining capacity of the passed buffer.

**Parameters:**

*array* - the **ByteArrayPerspective** (p. 908) to wrap  
*offset* - the offset into array where the buffer starts  
*length* - the length of the array we are wrapping or limit.  
*readOnly* - is this a readOnly buffer.

**Exceptions:**

*IndexOutOfBoundsException* if offset is greater than array capacity.

**6.289.1.4** `decaf::internal::nio::DoubleArrayBuffer::DoubleArrayBuffer (const DoubleArrayBuffer & other)`

Create a **DoubleArrayBuffer** (p. 1548) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.

**Parameters:**

*other* - the **DoubleArrayBuffer** (p. 1548) this one is to mirror.

**6.289.1.5** `virtual decaf::internal::nio::DoubleArrayBuffer::~~DoubleArrayBuffer () [virtual]`

**6.289.2 Member Function Documentation**

**6.289.2.1** `virtual double* decaf::internal::nio::DoubleArrayBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the double array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this Buffer

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements `decaf::nio::DoubleBuffer` (p. 1559).

**6.289.2.2** `virtual std::size_t decaf::internal::nio::DoubleArrayBuffer::arrayOffset  
( ) throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements `decaf::nio::DoubleBuffer` (p. 1559).

**6.289.2.3** `virtual DoubleBuffer* de-  
caf::internal::nio::DoubleArrayBuffer::asReadOnlyBuffer ( )  
const [virtual]`

Creates a new, read-only double buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only double buffer which the caller then owns.

Implements `decaf::nio::DoubleBuffer` (p. 1559).

#### 6.289.2.4 **virtual DoubleBuffer& decaf::internal::nio::DoubleArrayBuffer::compact** ( ) throw ( decaf::nio::ReadOnlyBufferException ) [virtual]

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

##### Returns:

a reference to this DoubleBuffer

##### Exceptions:

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::DoubleBuffer** (p. 1560).

#### 6.289.2.5 **virtual DoubleBuffer\* decaf::internal::nio::DoubleArrayBuffer::duplicate** ( ) [virtual]

Creates a new double buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

##### Returns:

a new double Buffer which the caller owns.

Implements **decaf::nio::DoubleBuffer** (p. 1560).

#### 6.289.2.6 **virtual double decaf::internal::nio::DoubleArrayBuffer::get (std::size\_t** *index*) const throw ( lang::exceptions::IndexOutOfBoundsException )

[virtual]

Absolute get method. Reads the value at the given index.

##### Parameters:

*index* - the index in the Buffer where the double is to be read

##### Returns:

the double that is located at the given index

##### Exceptions:

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::DoubleBuffer** (p. 1562).

**6.289.2.7 virtual double decaf::internal::nio::DoubleArrayBuffer::get () throw ( decaf::nio::BufferUnderflowException ) [virtual]**

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the double at the current position

**Exceptions:**

*BufferUnderflowException* if there no more data to return

Implements **decaf::nio::DoubleBuffer** (p. 1562).

**6.289.2.8 virtual bool decaf::internal::nio::DoubleArrayBuffer::hasArray () const [inline, virtual]**

Tells whether or not this buffer is backed by an accessible double array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements **decaf::nio::DoubleBuffer** (p. 1562).

**6.289.2.9 virtual bool decaf::internal::nio::DoubleArrayBuffer::isReadOnly () const [inline, virtual]**

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::Buffer** (p. 806).

**6.289.2.10 virtual DoubleBuffer& decaf::internal::nio::DoubleArrayBuffer::put (std::size\_t *index*, double *value*) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]**

Writes the given doubles into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the doubles to write.

**Returns:**

a reference to this buffer

**Exceptions:**

***IndexOutOfBoundsException*** - If index greater than the buffer's limit minus the size of the type being written.

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::DoubleBuffer** (p. 1563).

**6.289.2.11** **virtual DoubleBuffer& decaf::internal::nio::DoubleArrayBuffer::put (double *value*) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )** [virtual]

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

***value*** - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** - If this buffer's current position is not smaller than its limit

***ReadOnlyBufferException*** - If this buffer is read-only

Implements **decaf::nio::DoubleBuffer** (p. 1563).

**6.289.2.12** **virtual void decaf::internal::nio::DoubleArrayBuffer::setReadOnly (bool *value*)** [inline, protected, virtual]

Sets this **ByteBuffer** (p. 870) as Read-Only.

**Parameters:**

***value*** - true if this buffer is to be read-only.

**6.289.2.13** **virtual DoubleBuffer\* decaf::internal::nio::DoubleArrayBuffer::slice () const** [virtual]

Creates a new **DoubleBuffer** whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **DoubleBuffer** which the caller owns.

Implements **decaf::nio::DoubleBuffer** (p. 1565).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/DoubleArrayBuffer.h`

## 6.290 decaf::nio::DoubleBuffer Class Reference

This class defines four categories of operations upon double buffers:

#include <src/main/decaf/nio/DoubleBuffer.h> Inheritance diagram for decaf::nio::DoubleBuffer:

### Public Member Functions

- virtual **~DoubleBuffer** ()
- virtual std::string **toString** () const
- virtual double \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the double array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **DoubleBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only double buffer that shares this buffer's content.*
- virtual **DoubleBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **DoubleBuffer** \* **duplicate** ()=0  
*Creates a new double buffer that shares this buffer's content.*
- virtual double **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*
- virtual double **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **DoubleBuffer** & **get** (std::vector< double > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **DoubleBuffer** & **get** (double \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible double array.*
- **DoubleBuffer** & **put** (**DoubleBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the doubles remaining in the given source buffer into this buffer.*



- **DoubleBuffer** & **put** (const double \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )

*This method transfers doubles into this buffer from the given source array.*

- **DoubleBuffer** & **put** (std::vector< double > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )

*This method transfers the entire content of the given source doubles array into this buffer.*

- virtual **DoubleBuffer** & **put** (double value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )

*Writes the given doubles into this buffer at the current position, and then increments the position.*

- virtual **DoubleBuffer** & **put** (std::size\_t index, double value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )

*Writes the given doubles into this buffer at the given index.*

- virtual **DoubleBuffer** \* **slice** () const =0

*Creates a new **DoubleBuffer** (p. 1556) whose content is a shared subsequence of this buffer's content.*

- virtual int **compareTo** (const **DoubleBuffer** &value) const

*Compares this object with the specified object for order.*

- virtual bool **equals** (const **DoubleBuffer** &value) const

- virtual bool **operator==** (const **DoubleBuffer** &value) const

*Compares equality between this object and the one passed.*

- virtual bool **operator<** (const **DoubleBuffer** &value) const

*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **DoubleBuffer** \* **allocate** (std::size\_t capacity)

*Allocates a new Double buffer.*

- static **DoubleBuffer** \* **wrap** (double \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )

*Wraps the passed buffer with a new **DoubleBuffer** (p. 1556).*

- static **DoubleBuffer** \* **wrap** (std::vector< double > &buffer)

*Wraps the passed STL double Vector in a **DoubleBuffer** (p. 1556).*

## Protected Member Functions

- **DoubleBuffer** (std::size\_t capacity)

*Creates a **DoubleBuffer** (p. 1556) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.290.1 Detailed Description

This class defines four categories of operations upon double buffers: o Absolute and relative get and put methods that read and write single doubles; o Relative bulk get methods that transfer contiguous sequences of doubles from this buffer into an array; and o Relative bulk put methods that transfer contiguous sequences of doubles from a double array or some other double buffer into this buffer o Methods for compacting, duplicating, and slicing a double buffer.

Double buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing double array into a buffer, or by creating a view of an existing byte buffer

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained.

### 6.290.2 Constructor & Destructor Documentation

#### 6.290.2.1 decaf::nio::DoubleBuffer::DoubleBuffer (std::size\_t capacity) [protected]

Creates a **DoubleBuffer** (p. 1556) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size and limit of the **Buffer** (p. 803) in doubles

#### 6.290.2.2 virtual decaf::nio::DoubleBuffer::~~DoubleBuffer () [inline, virtual]

### 6.290.3 Member Function Documentation

#### 6.290.3.1 static DoubleBuffer\* decaf::nio::DoubleBuffer::allocate (std::size\_t capacity) [static]

Allocates a new Double buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

##### Parameters:

*capacity* - The size of the Double buffer in doubles

##### Returns:

the **DoubleBuffer** (p. 1556) that was allocated, caller owns.

### 6.290.3.2 virtual double\* decaf::nio::DoubleBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]

Returns the double array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

#### Returns:

the array that backs this **Buffer** (p. 803)

#### Exceptions:

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1550).

### 6.290.3.3 virtual std::size\_t decaf::nio::DoubleBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

#### Returns:

The offset into the backing array where index zero starts.

#### Exceptions:

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1551).

### 6.290.3.4 virtual DoubleBuffer\* decaf::nio::DoubleBuffer::asReadOnlyBuffer () const [pure virtual]

Creates a new, read-only double buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

#### Returns:

The new, read-only double buffer which the caller then owns.

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1551).

### 6.290.3.5 **virtual DoubleBuffer& decaf::nio::DoubleBuffer::compact () throw (ReadOnlyBufferException) [pure virtual]**

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

#### Returns:

a reference to this **DoubleBuffer** (p. 1556)

#### Exceptions:

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1552).

### 6.290.3.6 **virtual int decaf::nio::DoubleBuffer::compareTo (const DoubleBuffer &value) const [virtual]**

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

#### Parameters:

*value* - the Object to be compared.

#### Returns:

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

### 6.290.3.7 **virtual DoubleBuffer\* decaf::nio::DoubleBuffer::duplicate () [pure virtual]**

Creates a new double buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

#### Returns:

a new double **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1552).

### 6.290.3.8 virtual bool decaf::nio::DoubleBuffer::equals (const DoubleBuffer & *value*) const [virtual]

#### Returns:

true if this value is considered equal to the passed value.

### 6.290.3.9 DoubleBuffer& decaf::nio::DoubleBuffer::get (double \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )

Relative bulk get method. This method transfers doubles from this buffer into the given destination array. If there are fewer doubles remaining in the buffer than are required to satisfy the request, that is, if *length* > **remaining()** (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies *length* doubles from this buffer into the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by *length*.

#### Parameters:

*buffer* - pointer to an allocated buffer to fill

*offset* - position in the buffer to start filling

*length* - amount of data to put in the passed buffer

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than *length* doubles remaining in this buffer

**NullPointerException** if the passed buffer is null.

### 6.290.3.10 DoubleBuffer& decaf::nio::DoubleBuffer::get (std::vector< double > *buffer*) throw ( BufferUnderflowException )

Relative bulk get method. This method transfers values from this buffer into the given destination vector. An invocation of this method of the form *src.get(a)* behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call *buffer.resize( N )* before calling this get method.

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than *length* doubles remaining in this buffer

**6.290.3.11** `virtual double decaf::nio::DoubleBuffer::get (std::size_t index) const  
throw ( lang::exceptions::IndexOutOfBoundsException ) [pure  
virtual]`

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the double is to be read

**Returns:**

the double that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1552).

**6.290.3.12** `virtual double decaf::nio::DoubleBuffer::get () throw (  
BufferUnderflowException ) [pure virtual]`

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the double at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1553).

**6.290.3.13** `virtual bool decaf::nio::DoubleBuffer::hasArray () const [pure virtual]`

Tells whether or not this buffer is backed by an accessible double array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1553).

**6.290.3.14** `virtual bool decaf::nio::DoubleBuffer::operator< (const DoubleBuffer &  
value) const [virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.290.3.15** `virtual bool decaf::nio::DoubleBuffer::operator==(const DoubleBuffer & value) const` [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.290.3.16** `virtual DoubleBuffer& decaf::nio::DoubleBuffer::put(std::size_t index, double value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )` [pure virtual]

Writes the given doubles into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the doubles to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::DoubleArrayBuffer` (p. 1553).

**6.290.3.17** `virtual DoubleBuffer& decaf::nio::DoubleBuffer::put(double value) throw ( BufferOverflowException, ReadOnlyBufferException )` [pure virtual]

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If this buffer's current position is not smaller than its limit

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1554).

### 6.290.3.18 **DoubleBuffer& decaf::nio::DoubleBuffer::put (std::vector< double > & buffer) throw ( BufferOverflowException, ReadOnlyBufferException )**

This method transfers the entire content of the given source doubles array into this buffer. This is the same as calling `put( &buffer[0], 0, buffer.size()`

**Parameters:**

*buffer* - The buffer whose contents are copied to this **DoubleBuffer** (p. 1556)

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there is insufficient space in this buffer

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

### 6.290.3.19 **DoubleBuffer& decaf::nio::DoubleBuffer::put (const double \* buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )**

This method transfers doubles into this buffer from the given source array. If there are more doubles to be copied from the array than remain in this buffer, that is, if `length > remaining()` (p. 808), then no doubles are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `length` bytes from the given array into this buffer, starting at the given `offset` in the array and at the current position of this buffer. The position of this buffer is then incremented by `length`.

**Parameters:**

*buffer*- The array from which doubles are to be read

*offset*- The offset within the array of the first double to be read;

*length* - The number of doubles to be read from the given array

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there is insufficient space in this buffer



*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only  
*NullPointerException* if the passed buffer is null.

### 6.290.3.20 DoubleBuffer& decaf::nio::DoubleBuffer::put (DoubleBuffer & src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )

This method transfers the doubles remaining in the given source buffer into this buffer. If there are more doubles remaining in the source buffer than in this buffer, that is, if `src.remaining() > remaining()` (p. 808), then no doubles are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `n = src.remaining()` doubles from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by `n`.

#### Parameters:

*src* - the buffer to take doubles from an place in this one.

#### Returns:

a reference to this buffer

#### Exceptions:

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer for the remaining doubles in the source buffer

*IllegalArgumentException* - If the source buffer is this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

### 6.290.3.21 virtual DoubleBuffer\* decaf::nio::DoubleBuffer::slice () const [pure virtual]

Creates a new **DoubleBuffer** (p. 1556) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

#### Returns:

the newly create **DoubleBuffer** (p. 1556) which the caller owns.

Implemented in **decaf::internal::nio::DoubleArrayBuffer** (p. 1554).

### 6.290.3.22 virtual std::string decaf::nio::DoubleBuffer::toString () const [virtual]

#### Returns:

a `std::string` describing this object

### 6.290.3.23 `static DoubleBuffer* decaf::nio::DoubleBuffer::wrap (std::vector< double > & buffer) [static]`

Wraps the passed STL double Vector in a **DoubleBuffer** (p. 1556). The new buffer will be backed by the given double array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

#### Parameters:

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

#### Returns:

a new **DoubleBuffer** (p. 1556) that is backed by *buffer*, caller owns.

### 6.290.3.24 `static DoubleBuffer* decaf::nio::DoubleBuffer::wrap (double * array, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new **DoubleBuffer** (p. 1556). The new buffer will be backed by the given double array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

#### Parameters:

*array* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

#### Returns:

a new **DoubleBuffer** (p. 1556) that is backed by *buffer*, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/DoubleBuffer.h`

## 6.291 decaf::lang::DYNAMIC\_CAST\_TOKEN Struct Reference

```
#include <src/main/decaf/lang/Pointer.h>
```

The documentation for this struct was generated from the following file:

- `src/main/decaf/lang/Pointer.h`

## 6.292 activemq::cmsutil::DynamicDestinationResolver Class Reference

Resolves a CMS destination name to a `Destination`.

#include <src/main/activemq/cmsutil/DynamicDestinationResolver.h> Inheritance diagram for `activemq::cmsutil::DynamicDestinationResolver`:

### Data Structures

- class `SessionResolver`

*Manages maps of names to topics and queues for a single session.*

### Public Member Functions

- virtual `~DynamicDestinationResolver ()`
- virtual void `init (ResourceLifecycleManager *mgr)`  
*Initializes this destination resolver for use.*
- virtual void `destroy ()`  
*Destroys any allocated resources.*
- virtual `cms::Destination * resolveDestinationName (cms::Session *session, const std::string &destName, bool pubSubDomain) throw ( cms::CMSException )`  
*Resolves the given name to a destination.*

#### 6.292.1 Detailed Description

Resolves a CMS destination name to a `Destination`.

#### 6.292.2 Constructor & Destructor Documentation

- 6.292.2.1** virtual  
`activemq::cmsutil::DynamicDestinationResolver::~~DynamicDestinationResolver ()` [virtual]

#### 6.292.3 Member Function Documentation

- 6.292.3.1** virtual void `activemq::cmsutil::DynamicDestinationResolver::destroy ()` [virtual]

Destroys any allocated resources.

Implements `activemq::cmsutil::DestinationResolver` (p. 1509).

### 6.292.3.2 virtual void activemq::cmsutil::DynamicDestinationResolver::init (ResourceLifecycleManager \* *mgr*) [inline, virtual]

Initializes this destination resolver for use. Ensures that any previously allocated resources are first destroyed (e.g. calls **destroy()** (p.1568)).

#### Parameters:

*mgr* the resource lifecycle manager.

Implements **activemq::cmsutil::DestinationResolver** (p.1509).

### 6.292.3.3 virtual cms::Destination\* activemq::cmsutil::DynamicDestinationResolver::resolveDestinationName (cms::Session \* *session*, const std::string & *destName*, bool *pubSubDomain*) throw ( cms::CMSException ) [virtual]

Resolves the given name to a destination. If *pubSubDomain* is true, a topic will be returned, otherwise a queue will be returned.

#### Parameters:

*session* the session for which to retrieve resolve the destination.

*destName* the name to be resolved.

*pubSubDomain* If true, the name will be resolved to a Topic, otherwise a Queue.

#### Returns:

the resolved destination

#### Exceptions:

*cms::CMSException* (p. 1031) if resolution failed.

Implements **activemq::cmsutil::DestinationResolver** (p.1510).

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/DynamicDestinationResolver.h

## 6.293 decaf::util::Map< K, V, COMPARATOR >::Entry Class Reference

```
#include <src/main/decaf/util/Map.h>
```

### Public Member Functions

- **Entry** ()
- virtual **~Entry** ()
- virtual const K & **getKey** () const =0
- virtual const V & **getValue** () const =0
- virtual void **setValue** (const V &value)=0

```
template<typename K, typename V, typename COMPARATOR = std::less<K>>
class decaf::util::Map< K, V, COMPARATOR >::Entry
```

### 6.293.1 Constructor & Destructor Documentation

**6.293.1.1** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::Map< K, V, COMPARATOR >::Entry::Entry () [inline]`

**6.293.1.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual decaf::util::Map< K, V, COMPARATOR >::Entry::~Entry () [inline, virtual]`

### 6.293.2 Member Function Documentation

**6.293.2.1** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual const K& decaf::util::Map< K, V, COMPARATOR >::Entry::getKey () const [pure virtual]`

**6.293.2.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual const V& decaf::util::Map< K, V, COMPARATOR >::Entry::getValue () const [pure virtual]`

**6.293.2.3** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::Map< K, V, COMPARATOR >::Entry::setValue (const V & value) [pure virtual]`

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Map.h`

## 6.294 decaf::io::EOFException Class Reference

#include <src/main/decaf/io/EOFException.h> Inheritance diagram for decaf::io::EOFException:

### Public Member Functions

- **EOFException** () throw ()  
*Default Constructor.*
- **EOFException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **EOFException** (const EOFException &ex) throw ()  
*Copy Constructor.*
- **EOFException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **EOFException** (const std::exception \*cause) throw ()  
*Constructor.*
- **EOFException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **EOFException** \* clone () const  
*Clones this exception.*
- virtual ~**EOFException** () throw ()

### 6.294.1 Constructor & Destructor Documentation

#### 6.294.1.1 decaf::io::EOFException::EOFException () throw () [inline]

Default Constructor.

#### 6.294.1.2 decaf::io::EOFException::EOFException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy

### 6.294.1.3 `decaf::io::EOFException::EOFException (const EOFException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* the exception to copy, which is an instance of this type

### 6.294.1.4 `decaf::io::EOFException::EOFException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.294.1.5 `decaf::io::EOFException::EOFException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.294.1.6 `decaf::io::EOFException::EOFException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor.

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message



**6.294.1.7**    `virtual decaf::io::EOFException::~~EOFException () throw () [inline, virtual]`

## 6.294.2 Member Function Documentation

**6.294.2.1**    `virtual EOFException* decaf::io::EOFException::clone () const [inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new instance of an Exception that is a copy of this one.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/EOFException.h`

## 6.295 decaf::lang::Exception Class Reference

#include <src/main/decaf/lang/Exception.h> Inheritance diagram for decaf::lang::Exception:

### Public Member Functions

- **Exception** () throw ()  
*Default Constructor.*
- **Exception** (const **Exception** &ex) throw ()  
*Copy Constructor.*
- **Exception** (const std::exception \***cause**) throw ()  
*Constructor.*
- **Exception** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **Exception** (const char \*file, const int lineNumber, const std::exception \***cause**, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual ~**Exception** () throw ()
- virtual std::string **getMessage** () const  
*Gets the message for this exception.*
- virtual const std::exception \* **getCause** () const  
*Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.*
- virtual void **initCause** (const std::exception \***cause**)  
*Initializes the contained cause exception with the one given.*
- virtual const char \* **what** () const throw ()  
*Implement method from std::exception.*
- virtual void **setMessage** (const char \*msg,...)  
*Sets the cause for this exception.*
- virtual void **setMark** (const char \*file, const int lineNumber)  
*Adds a file/line number to the stack trace.*
- virtual **Exception** \* **clone** () const  
*Clones this exception.*

- virtual `std::vector< std::pair< std::string, int > > getStackTrace () const`  
*Provides the stack trace for every point where this exception was caught, marked, and rethrown.*
- virtual void `printStackTrace () const`  
*Prints the stack trace to `std::err`.*
- virtual void `printStackTrace (std::ostream &stream) const`  
*Prints the stack trace to the given output stream.*
- virtual `std::string getStackTraceString () const`  
*Gets the stack trace as one contiguous string.*
- virtual `Exception & operator= (const Exception &ex)`  
*Assignment operator.*

## Protected Member Functions

- virtual void `setStackTrace (const std::vector< std::pair< std::string, int > > &trace)`
- virtual void `buildMessage (const char *format, va_list &args)`

## Protected Attributes

- `std::string message`  
*The cause of this exception.*
- `std::exception * cause`  
*The **Exception** (p. 1574) that caused this one to be thrown.*
- `std::vector< std::pair< std::string, int > > stackTrace`  
*The stack trace.*

## 6.295.1 Constructor & Destructor Documentation

### 6.295.1.1 decaf::lang::Exception::Exception () throw ()

Default Constructor.

Referenced by `decaf::util::concurrent::BrokenBarrierException::BrokenBarrierException()`,  
`decaf::util::concurrent::CancellationException::CancellationException()`,  
`decaf::util::concurrent::ExecutionException::ExecutionException()`,  
`decaf::net::HttpRetryException::HttpRetryException()`, `decaf::net::MalformedURLException::MalformedURLException()`,  
`decaf::net::ProtocolException::ProtocolException()`, `decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException()`,  
`decaf::net::SocketTimeoutException::SocketTimeoutException()`,  
`decaf::util::concurrent::TimeoutException::TimeoutException()`,  
`decaf::net::UnknownHostException::UnknownHostException()`, and `decaf::net::UnknownServiceException::UnknownServiceException()`.

**6.295.1.2 decaf::lang::Exception::Exception (const Exception & *ex*) throw ()**

Copy Constructor.

**Parameters:**

*ex* The Exception (p.1574) instance to copy.

**6.295.1.3 decaf::lang::Exception::Exception (const std::exception \* *cause*) throw ()**

Constructor.

**Parameters:**

*cause* **Pointer** (p.2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.295.1.4 decaf::lang::Exception::Exception (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.295.1.5 decaf::lang::Exception::Exception (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw ()**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.295.1.6** virtual decaf::lang::Exception::~~Exception () throw () [virtual]

## 6.295.2 Member Function Documentation

**6.295.2.1** virtual void decaf::lang::Exception::buildMessage (const char \* *format*, va\_list & *vargs*) [protected, virtual]

Referenced by decaf::lang::exceptions::NumberFormatException::NumberFormatException().

**6.295.2.2** virtual Exception\* decaf::lang::Exception::clone () const [virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

Copy of this **Exception** (p. 1574) object

Implements **decaf::lang::Throwable** (p. 3182).

Reimplemented in **activemq::exceptions::ActiveMQException** (p. 306), **activemq::exceptions::BrokerException** (p. 749), **decaf::io::EOFException** (p. 1573), **decaf::io::InterruptedIOException** (p. 1807), **decaf::io::IOException** (p. 1822), **decaf::io::UnsupportedEncodingException** (p. 3302), **decaf::io::UTFDataFormatException** (p. 3355), **decaf::lang::exceptions::ClassCastException** (p. 1018), **decaf::lang::exceptions::IllegalArgumentException** (p. 1722), **decaf::lang::exceptions::IllegalMonitorStateException** (p. 1725), **decaf::lang::exceptions::IllegalStateException** (p. 1728), **decaf::lang::exceptions::IllegalThreadStateException** (p. 1732), **decaf::lang::exceptions::IndexOutOfBoundsException** (p. 1739), **decaf::lang::exceptions::InterruptedException** (p. 1804), **decaf::lang::exceptions::InvalidStateException** (p. 1819), **decaf::lang::exceptions::NoSuchElementException** (p. 2425), **decaf::lang::exceptions::NullPointerException** (p. 2431), **decaf::lang::exceptions::NumberFormatException** (p. 2437), **decaf::lang::exceptions::RuntimeException** (p. 2821), **decaf::lang::exceptions::UnsupportedOperationException** (p. 3307), **decaf::net::BindException** (p. 723), **decaf::net::ConnectException** (p. 1130), **decaf::net::HttpRetryException** (p. 1719), **decaf::net::MalformedURLException** (p. 2093), **decaf::net::NoRouteToHostException** (p. 2419), **decaf::net::PortUnreachableException** (p. 2524), **decaf::net::ProtocolException** (p. 2669), **decaf::net::SocketException** (p. 2973), **decaf::net::SocketTimeoutException** (p. 2992), **decaf::net::UnknownHostException** (p. 3296), **decaf::net::UnknownServiceException** (p. 3299), **decaf::net::URISyntaxException** (p. 3337), **decaf::nio::BufferOverflowException** (p. 836), **decaf::nio::BufferUnderflowException** (p. 839), **decaf::nio::InvalidMarkException** (p. 1815), **decaf::nio::ReadOnlyBufferException** (p. 2687), **decaf::util::concurrent::BrokenBarrierException** (p. 744), **decaf::util::concurrent::CancellationException** (p. 967), **decaf::util::concurrent::ExecutionException** (p. 1607), **decaf::util::concurrent::RejectedExecutionException** (p. 2701), and **decaf::util::concurrent::TimeoutException** (p. 3187).

**6.295.2.3** `virtual const std::exception* decaf::lang::Exception::getCause () const`  
[inline, virtual]

Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.

**Returns:**

a const pointer reference to the causal exception, if there was no cause associated with this exception then NULL is returned.

Implements **decaf::lang::Throwable** (p. 3183).

**6.295.2.4** `virtual std::string decaf::lang::Exception::getMessage () const` [inline, virtual]

Gets the message for this exception.

**Returns:**

Text formatted error message

Implements **decaf::lang::Throwable** (p. 3183).

**6.295.2.5** `virtual std::vector< std::pair< std::string, int> > decaf::lang::Exception::getStackTrace () const` [virtual]

Provides the stack trace for every point where this exception was caught, marked, and rethrown. The first item in the returned vector is the first point where the mark was set (e.g. where the exception was created).

**Returns:**

the stack trace.

Implements **decaf::lang::Throwable** (p. 3183).

**6.295.2.6** `virtual std::string decaf::lang::Exception::getStackTraceString () const`  
[virtual]

Gets the stack trace as one contiguous string.

**Returns:**

string with formatted stack trace data

Implements **decaf::lang::Throwable** (p. 3183).

**6.295.2.7** `virtual void decaf::lang::Exception::initCause (const std::exception * cause)` [virtual]

Initializes the contained cause exception with the one given. A copy is made to avoid ownership issues.

**Parameters:**

*cause* The exception that was the cause of this one.

Implements **decaf::lang::Throwable** (p. 3183).

**6.295.2.8 virtual Exception& decaf::lang::Exception::operator= (const Exception & *ex*) [virtual]**

Assignment operator.

**Parameters:**

*ex* const reference to another **Exception** (p. 1574)

**6.295.2.9 virtual void decaf::lang::Exception::printStackTrace (std::ostream & *stream*) const [virtual]**

Prints the stack trace to the given output stream.

**Parameters:**

*stream* the target output stream.

Implements **decaf::lang::Throwable** (p. 3184).

**6.295.2.10 virtual void decaf::lang::Exception::printStackTrace () const [virtual]**

Prints the stack trace to std::err.

Implements **decaf::lang::Throwable** (p. 3184).

**6.295.2.11 virtual void decaf::lang::Exception::setMark (const char \* *file*, const int *lineNumber*) [virtual]**

Adds a file/line number to the stack trace.

**Parameters:**

*file* The name of the file calling this method (use `__FILE__`).

*lineNumber* The line number in the calling file (use `__LINE__`).

Implements **decaf::lang::Throwable** (p. 3184).

Referenced by `activemq::exceptions::BrokerException::BrokerException()`, and `decaf::lang::exceptions::NumberFormatException::NumberFormatException()`.

**6.295.2.12 virtual void decaf::lang::Exception::setMessage (const char \* *msg*, ...) [virtual]**

Sets the cause for this exception.

**Parameters:**

*msg* the format string for the msg.  
... params to format into the string

Referenced by `activemq::exceptions::BrokerException::BrokerException()`.

**6.295.2.13** `virtual void decaf::lang::Exception::setStackTrace (const std::vector< std::pair< std::string, int > > & trace) [protected, virtual]`

**6.295.2.14** `virtual const char* decaf::lang::Exception::what () const throw () [inline, virtual]`

Implement method from `std::exception`.

**Returns:**

the const char\* of `getMessage()` (p. 1578).

**6.295.3 Field Documentation**

**6.295.3.1** `std::exception* decaf::lang::Exception::cause [protected]`

The **Exception** (p. 1574) that caused this one to be thrown.

**6.295.3.2** `std::string decaf::lang::Exception::message [protected]`

The cause of this exception.

**6.295.3.3** `std::vector< std::pair< std::string, int> > decaf::lang::Exception::stackTrace [protected]`

The stack trace.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Exception.h`



## 6.296 cms::ExceptionListener Class Reference

If a CMS provider detects a serious problem, it notifies the client application through an `ExceptionListener` (p. 1581) that is registered with the `Connection` (p. 1131).

```
#include <src/main/cms/ExceptionListener.h>
```

### Public Member Functions

- virtual `~ExceptionListener ()`
- virtual void `onException (const cms::CMSException &ex)=0`  
*Called when an exception occurs.*

#### 6.296.1 Detailed Description

If a CMS provider detects a serious problem, it notifies the client application through an `ExceptionListener` (p. 1581) that is registered with the `Connection` (p. 1131). An exception listener allows a client to be notified of a problem asynchronously. Some connections only consume messages via the asynchronous event mechanism so they would have no other way to learn that their connection has failed.

Since:

1.0

#### 6.296.2 Constructor & Destructor Documentation

**6.296.2.1** virtual `cms::ExceptionListener::~ExceptionListener ()` [inline, virtual]

#### 6.296.3 Member Function Documentation

**6.296.3.1** virtual void `cms::ExceptionListener::onException (const cms::CMSException & ex)` [pure virtual]

Called when an exception occurs. Once notified of an exception the caller should no longer use the resource that generated the exception.

**Parameters:**

*ex* Exception Object that occurred.

The documentation for this class was generated from the following file:

- `src/main/cms/ExceptionListener.h`

## 6.297 activemq::commands::ExceptionResponse Class Reference

#include <src/main/activemq/commands/ExceptionResponse.h> Inheritance diagram for activemq::commands::ExceptionResponse:

### Public Member Functions

- **ExceptionResponse** ()
- virtual **~ExceptionResponse** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ExceptionResponse \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **BrokerError** > & **getException** () const
- virtual **Pointer**< **BrokerError** > & **getException** ()
- virtual void **setException** (const **Pointer**< **BrokerError** > &exception)

### Static Public Attributes

- static const unsigned char **ID\_EXCEPTIONRESPONSE** = 31

### Protected Member Functions

- **ExceptionResponse** (const **ExceptionResponse** &)
- **ExceptionResponse** & **operator=** (const **ExceptionResponse** &)

### Protected Attributes

- **Pointer**< **BrokerError** > **exception**

## 6.297.1 Constructor & Destructor Documentation

**6.297.1.1** `activemq::commands::ExceptionResponse::ExceptionResponse (const ExceptionResponse &) [inline, protected]`

**6.297.1.2** `activemq::commands::ExceptionResponse::ExceptionResponse ()`

**6.297.1.3** `virtual activemq::commands::ExceptionResponse::~~ExceptionResponse () [virtual]`

## 6.297.2 Member Function Documentation

**6.297.2.1** `virtual ExceptionResponse* activemq::commands::ExceptionResponse::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.297.2.2** `virtual void activemq::commands::ExceptionResponse::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.297.2.3** `virtual bool activemq::commands::ExceptionResponse::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::Response` (p. 2782).

**6.297.2.4** `virtual unsigned char activemq::commands::ExceptionResponse::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Reimplemented from **activemq::commands::Response** (p. 2783).

- 6.297.2.5** `virtual Pointer<BrokerError>& activemq::commands::ExceptionResponse::getException ()` [virtual]
- 6.297.2.6** `virtual const Pointer<BrokerError>& activemq::commands::ExceptionResponse::getException ()` const [virtual]
- 6.297.2.7** `ExceptionResponse& activemq::commands::ExceptionResponse::operator= (const ExceptionResponse &)` [inline, protected]
- 6.297.2.8** `virtual void activemq::commands::ExceptionResponse::setException (const Pointer< BrokerError > & exception)` [virtual]
- 6.297.2.9** `virtual std::string activemq::commands::ExceptionResponse::toString ()` const [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Response** (p. 2783).

**6.297.3 Field Documentation**

- 6.297.3.1** `Pointer<BrokerError> activemq::commands::ExceptionResponse::exception` [protected]
- 6.297.3.2** `const unsigned char activemq::commands::ExceptionResponse::ID _ - EXCEPTIONRESPONSE = 31` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ExceptionResponse.h`

## 6.298 activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1585).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ExceptionResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller:

### Public Member Functions

- **ExceptionResponseMarshaller** ()
- virtual **~ExceptionResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.298.1 Detailed Description

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1585). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.298.2 Constructor & Destructor Documentation

**6.298.2.1** `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::ExceptionRe  
( ) [inline]`

**6.298.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::~~ExceptionR  
( ) [inline, virtual]`

## 6.298.3 Member Function Documentation

**6.298.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.298.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.298.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2792).

**6.298.3.4** **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::looseUnmarsh**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2793).

**6.298.3.5** **virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::tightMarshal**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*,**  
**utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2793).

**6.298.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2794).

**6.298.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2795).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ExceptionResponseMarshaller.h



## 6.299 activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1589).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ExceptionResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller:

### Public Member Functions

- **ExceptionResponseMarshaller** ()
- virtual **~ExceptionResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.299.1 Detailed Description

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1589). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.299.2 Constructor & Destructor Documentation

**6.299.2.1** `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::ExceptionResponseMarshaller()` [inline]

**6.299.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::~ExceptionResponseMarshaller()` [inline, virtual]

## 6.299.3 Member Function Documentation

**6.299.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.299.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.299.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2807).

**6.299.3.4** **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::looseUnmarsh**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2808).

**6.299.3.5** **virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::tightMarshal**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \***  
***dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2808).

**6.299.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2809).

**6.299.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2810).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ExceptionResponseMarshaller.h

## 6.300 activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1593).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ExceptionResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller:

### Public Member Functions

- **ExceptionResponseMarshaller** ()
- virtual **~ExceptionResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.300.1 Detailed Description

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1593). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.300.2 Constructor & Destructor Documentation

**6.300.2.1** `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::ExceptionResponseMarshaller()` [inline]

**6.300.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::~ExceptionResponseMarshaller()` [inline, virtual]

## 6.300.3 Member Function Documentation

**6.300.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.300.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.300.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2797).

**6.300.3.4** **virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::looseUnmarsh**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2798).

**6.300.3.5** **virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::tightMarshal**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*,**  
**utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2798).

**6.300.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2799).

**6.300.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2800).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ExceptionResponseMarshaller.h



## 6.301 activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1597).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ExceptionResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller:

### Public Member Functions

- **ExceptionResponseMarshaller** ()
- virtual **~ExceptionResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.301.1 Detailed Description

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1597). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.301.2 Constructor & Destructor Documentation

**6.301.2.1** `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::ExceptionRe  
( ) [inline]`

**6.301.2.2** `virtual  
activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::~ExceptionR  
( ) [inline, virtual]`

## 6.301.3 Member Function Documentation

**6.301.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.301.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.301.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.301.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.301.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.301.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2814).

**6.301.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2815).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ExceptionResponseMarshaller.h

## 6.302 activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1601).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ExceptionResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller:

### Public Member Functions

- **ExceptionResponseMarshaller** ()
- virtual **~ExceptionResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.302.1 Detailed Description

Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1601). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.302.2 Constructor & Destructor Documentation

**6.302.2.1** `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::ExceptionRe  
( ) [inline]`

**6.302.2.2** `virtual  
activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::~ExceptionR  
( ) [inline, virtual]`

## 6.302.3 Member Function Documentation

**6.302.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.302.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.302.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (   
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.302.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2803).

**6.302.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2803).

**6.302.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2804).

**6.302.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2805).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ExceptionResponseMarshaller.h



## 6.303 decaf::util::concurrent::ExecutionException Class Reference

#include <src/main/decaf/util/concurrent/ExecutionException.h> Inheritance diagram for decaf::util::concurrent::ExecutionException:

### Public Member Functions

- **ExecutionException** () throw ()  
*Default Constructor.*
- **ExecutionException** (const **decaf::lang::Exception** &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **ExecutionException** (const **ExecutionException** &ex) throw ()  
*Copy Constructor.*
- **ExecutionException** (const std::exception \*cause) throw ()  
*Constructor.*
- **ExecutionException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **ExecutionException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **ExecutionException** \* clone () const  
*Clones this exception.*
- virtual ~**ExecutionException** () throw ()

### 6.303.1 Constructor & Destructor Documentation

**6.303.1.1 decaf::util::concurrent::ExecutionException::ExecutionException () throw () [inline]**

Default Constructor.

**6.303.1.2 decaf::util::concurrent::ExecutionException::ExecutionException (const decaf::lang::Exception & ex) throw () [inline]**

Conversion Constructor from some other Exception.

#### Parameters:

**ex** - An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

### 6.303.1.3 `decaf::util::concurrent::ExecutionException::ExecutionException (const ExecutionException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* - The Exception to copy in this new instance.

References `decaf::lang::Exception::Exception()`.

### 6.303.1.4 `decaf::util::concurrent::ExecutionException::ExecutionException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.303.1.5 `decaf::util::concurrent::ExecutionException::ExecutionException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*msg* - The message to report

*...* - The list of primitives that are formatted into the message

### 6.303.1.6 `decaf::util::concurrent::ExecutionException::ExecutionException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*cause* - The exception that was the cause for this one to be thrown.

*msg* - The message to report

*...* - list of primitives that are formatted into the message

**6.303.1.7** virtual decaf::util::concurrent::ExecutionException::~ExecutionException  
( ) throw ( ) [inline, virtual]

## 6.303.2 Member Function Documentation

**6.303.2.1** virtual ExecutionException\* decaf::util::concurrent::ExecutionException::clone ( ) const  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new instance of an exception that is a clone of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**ExecutionException.h**

## 6.304 decaf::util::concurrent::Executor Class Reference

An object that executes submitted **decaf.lang Runnable** (p. 2816) tasks.

#include <src/main/decaf/util/concurrent/Executor.h> Inheritance diagram for decaf::util::concurrent::Executor:

### Public Member Functions

- virtual **~Executor** ()
- virtual void **execute** (Runnable \*command)=0 throw ( decaf::util::concurrent::RejectedExecutionException, decaf::lang::exceptions::NullPointerException )

*Executes the given command at some time in the future.*

### 6.304.1 Detailed Description

An object that executes submitted **decaf.lang Runnable** (p. 2816) tasks. This interface provides a way of decoupling task submission from the mechanics of how each task will be run, including details of thread use, scheduling, etc. An **Executor** (p. 1608) is normally used instead of explicitly creating threads. For example, rather than invoking `new Thread(new RunnableTask()).start()` for each of a set of tasks, you might use:

```
Executor (p. 1608) executor = anExecutor;
executor->execute( new RunnableTask1() );
executor->execute( new RunnableTask2() );
...
```

However, the **Executor** (p. 1608) interface does not strictly require that execution be asynchronous. In the simplest case, an executor can run the submitted task immediately in the caller's thread:

```
class DirectExecutor : public Executor (p. 1608) {
public:

    void execute( Runnable* r ) (p. 1609) {
        r->run();
    }

}
```

More typically, tasks are executed in some thread other than the caller's thread. The executor below spawns a new thread for each task.

```
class ThreadPerTaskExecutor : public Executor (p. 1608) {
public:
    std::vector<Thread*gt; threads;
```

```
void execute( Runnable* r ) (p.1609) {  
    threads.push_back( new Thread( r ) );  
    threads.rbegin()->start();  
}  
  
}
```

The `Executor` (p.1608) implementations provided in this package implement **decaf.util.concurrent.ExecutorService** (p.1610), which is a more extensive interface. The **decaf.util.concurrent.ThreadPoolExecutor** (p.??) class provides an extensible thread pool implementation. The **decaf.util.concurrentExecutor** (p.??) class provides convenient factory methods for these Executors.

**Since:**

1.0

## 6.304.2 Constructor & Destructor Documentation

**6.304.2.1** `virtual decaf::util::concurrent::Executor::~~Executor ()` [inline, virtual]

## 6.304.3 Member Function Documentation

**6.304.3.1** `virtual void decaf::util::concurrent::Executor::execute (Runnable * command) throw ( decaf::util::concurrent::RejectedExecutionException, decaf::lang::exceptions::NullPointerException )` [pure virtual]

Executes the given command at some time in the future. The command may execute in a new thread, in a pooled thread, or in the calling thread, at the discretion of the `Executor` (p.1608) implementation.

**Parameters:**

*command* the runnable task

**Exceptions:**

***RejectedExecutionException*** (p. 2699) if this task cannot be accepted for execution.

***NullPointerException*** if command is null

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Executor.h`

## 6.305 decaf::util::concurrent::ExecutorService Class Reference

An **Executor** (p.1608) that provides methods to manage termination and methods that can produce a **Future** (p.1701) for tracking progress of one or more asynchronous tasks.

#include <src/main/decaf/util/concurrent/ExecutorService.h> Inheritance diagram for decaf::util::concurrent::ExecutorService:

### Public Member Functions

- virtual **~ExecutorService** ()
- bool **awaitTermination** (long long timeout, const **TimeUnit** &unit)=0 throw ( decaf::lang::exceptions::InterruptedException )

*Blocks until all tasks have completed execution after a shutdown request, or the timeout occurs, or the current thread is interrupted, whichever happens first.*

### 6.305.1 Detailed Description

An **Executor** (p.1608) that provides methods to manage termination and methods that can produce a **Future** (p.1701) for tracking progress of one or more asynchronous tasks. An **ExecutorService** (p.1610) can be shut down, which will cause it to reject new tasks. Two different methods are provided for shutting down an **ExecutorService** (p.1610). The shutdown() method will allow previously submitted tasks to execute before terminating, while the shutdownNow() method prevents waiting tasks from starting and attempts to stop currently executing tasks. Upon termination, an executor has no tasks actively executing, no tasks awaiting execution, and no new tasks can be submitted. An unused **ExecutorService** (p.1610) should be shut down to allow reclamation of its resources.

Method submit extends base method **Executor.execute** (p.1609)(**decaf.lang Runnable** (p.2816)) by creating and returning a **Future** (p.1701) that can be used to cancel execution and/or wait for completion. Methods invokeAny and invokeAll perform the most commonly useful forms of bulk execution, executing a collection of tasks and then waiting for at least one, or all, to complete. (Class ExecutorCompletionService can be used to write customized variants of these methods.)

The Executors class provides factory methods for the executor services provided in this package.

Since:

1.0

## 6.305.2 Constructor & Destructor Documentation

**6.305.2.1** `virtual decaf::util::concurrent::ExecutorService::~~ExecutorService ()`  
[inline, virtual]

## 6.305.3 Member Function Documentation

**6.305.3.1** `bool decaf::util::concurrent::ExecutorService::awaitTermination`  
(long long *timeout*, const TimeUnit & *unit*) throw (  
decaf::lang::exceptions::InterruptedException ) [pure virtual]

Blocks until all tasks have completed execution after a shutdown request, or the timeout occurs, or the current thread is interrupted, whichever happens first.

### Parameters:

*timeout* The amount of time to wait before timing out the Wait operation.

*unit* The Units that comprise the timeout value.

### Returns:

true if the executor terminated before the given timeout value elapsed.

### Exceptions:

*InterruptedException* - if interrupted while waiting.

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**ExecutorService.h**

## 6.306 `activemq::transport::failover::FailoverTransport` Class Reference

`#include <src/main/activemq/transport/failover/FailoverTransport.h>` Inheritance diagram for `activemq::transport::failover::FailoverTransport`:

### Public Member Functions

- **FailoverTransport** ()
- virtual **~FailoverTransport** ()
- void **reconnect** ()  
*Indicates that the **Transport** (p. 3273) needs to reconnect to another URI in its list.*
- void **add** (const std::string &uri)  
*Adds a New URI to the List of URIs this transport can Connect to.*
- virtual void **addURI** (const **List**< **URI** > &uris)  
*Add a URI to the list of URI's that will represent the set of Transports that this **Transport** (p. 3273) is a composite of.*
- virtual void **removeURI** (const **List**< **URI** > &uris)  
*Remove a URI from the set of URI's that represents the set of Transports that this **Transport** (p. 3273) is composed of, removing a URI for which the composite has created a connected **Transport** (p. 3273) should result in that **Transport** (p. 3273) being disposed of.*
- virtual void **start** () throw ( decaf::io::IOException )  
*Starts this transport object and creates the thread for polling on the input stream for commands.*
- virtual void **stop** () throw ( decaf::io::IOException )  
*Stop the **Transport** (p. 3273).*
- virtual void **close** () throw ( decaf::io::IOException )  
*Stops the polling thread and closes the streams.*
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given command to the broker and then waits for the response.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given command to the broker and then waits for the response.*



- virtual void **setWireFormat** (const **Pointer**< **wireformat::WireFormat** > &wireFormat AMQCPP\_UNUSED)  
*Sets the WireFormat instance to use.*
- virtual void **setTransportListener** (**TransportListener** \*listener)  
*Sets the observer of asynchronous events from this transport.*
- virtual **TransportListener** \* **getTransportListener** () const  
*Gets the observer of asynchronous exceptions from this transport.*
- virtual bool **isFaultTolerant** () const  
*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*
- virtual bool **isConnected** () const  
*Is the **Transport** (p. 3273) Connected to its Broker.*
- virtual bool **isClosed** () const  
*Has the **Transport** (p. 3273) been shutdown and no longer usable.*
- bool **isInitialized** () const  
*Returns true if the **Transport** (p. 3273) has been initialized by a BrokerInfo command.*
- void **setInitialized** (bool value)  
*Sets the initialized state of this **Transport** (p. 3273) to true.*
- virtual **Transport** \* **narrow** (const std::type\_info &typeId)  
*Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.*
- virtual std::string **getRemoteAddress** () const
- virtual bool **isPending** () const
- virtual bool **iterate** ()  
*Performs the actual Reconnect operation for the **FailoverTransport** (p. 1612), when a connection is made this method returns false to indicate it doesn't need to run again, otherwise it returns true to indicate its still trying to connect.*
- virtual void **reconnect** (const **decaf::net::URI** &uri) throw ( **decaf::io::IOException** )  
*reconnect to another location*
- long long **getTimeout** () const
- void **setTimeout** (long long value)
- long long **getInitialReconnectDelay** () const
- void **setInitialReconnectDelay** (long long value)
- long long **getMaxReconnectDelay** () const
- void **setMaxReconnectDelay** (long long value)
- long long **getBackOffMultiplier** () const
- void **setBackOffMultiplier** (long long value)
- bool **isUseExponentialBackOff** () const
- void **setUseExponentialBackOff** (bool value)
- bool **isRandomize** () const

- void **setRandomize** (bool value)
- int **getMaxReconnectAttempts** () const
- void **setMaxReconnectAttempts** (int value)
- long long **getReconnectDelay** () const
- void **setReconnectDelay** (long long value)
- bool **isBackup** () const
- void **setBackup** (bool value)
- int **getBackupPoolSize** () const
- void **setBackupPoolSize** (int value)
- bool **isTrackMessages** () const
- void **setTrackMessages** (bool value)
- int **getMaxCacheSize** () const
- void **setMaxCacheSize** (int value)

## Protected Member Functions

- void **restoreTransport** (const **Pointer**< **Transport** > &transport) throw ( decaf::io::IOException )

*Given a **Transport** (p. 3273) restore the state of the Client's connection to the Broker using the data accumulated in the State Tracker.*

- void **handleTransportFailure** (const decaf::lang::Exception &error) throw ( decaf::lang::Exception )

*Called when this class' **TransportListener** (p. 3289) is notified of a Failure.*

## Friends

- class **FailoverTransportListener**

## 6.306.1 Constructor & Destructor Documentation

### 6.306.1.1 activemq::transport::failover::FailoverTransport::FailoverTransport ()

### 6.306.1.2 virtual activemq::transport::failover::FailoverTransport::~~FailoverTransport () [virtual]

## 6.306.2 Member Function Documentation

### 6.306.2.1 void activemq::transport::failover::FailoverTransport::add (const std::string & uri)

Adds a New URI to the List of URIs this transport can Connect to.

#### Parameters:

**uri** A String version of a URI to add to the URIs to failover to.

### 6.306.2.2 virtual void activemq::transport::failover::FailoverTransport::addURI (const List< URI > & *uris*) [virtual]

Add a URI to the list of URI's that will represent the set of Transports that this **Transport** (p. 3273) is a composite of.

#### Parameters:

*uris* The new URIs to add to the set this composite maintains.

Implements **activemq::transport::CompositeTransport** (p. 1095).

### 6.306.2.3 virtual void activemq::transport::failover::FailoverTransport::close () throw ( decaf::io::IOException ) [virtual]

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

#### Exceptions:

**IOException** if errors occur.

Implements **decaf::io::Closeable** (p. 1019).

- 6.306.2.4 `long long activemq::transport::failover::FailoverTransport::getBackOffMultiplier () const [inline]`
- 6.306.2.5 `int activemq::transport::failover::FailoverTransport::getBackupPoolSize () const [inline]`
- 6.306.2.6 `long long activemq::transport::failover::FailoverTransport::getInitialReconnectDelay () const [inline]`
- 6.306.2.7 `int activemq::transport::failover::FailoverTransport::getMaxCacheSize () const [inline]`
- 6.306.2.8 `int activemq::transport::failover::FailoverTransport::getMaxReconnectAttempts () const [inline]`
- 6.306.2.9 `long long activemq::transport::failover::FailoverTransport::getMaxReconnectDelay () const [inline]`
- 6.306.2.10 `long long activemq::transport::failover::FailoverTransport::getReconnectDelay () const [inline]`
- 6.306.2.11 `virtual std::string activemq::transport::failover::FailoverTransport::getRemoteAddress () const [virtual]`

**Returns:**

the remote address for this connection

Implements `activemq::transport::Transport` (p. 3274).

- 6.306.2.12 `long long activemq::transport::failover::FailoverTransport::getTimeout () const [inline]`
- 6.306.2.13 `virtual TransportListener* activemq::transport::failover::FailoverTransport::getTransportListener () const [virtual]`

Gets the observer of asynchronous exceptions from this transport.

**Returns:**

The listener of transport events.

Implements `activemq::transport::Transport` (p. 3274).

**6.306.2.14** void activemq::transport::failover::FailoverTransport::handleTransportFailure (const decaf::lang::Exception & *error*) throw ( decaf::lang::Exception ) [protected]

Called when this class' **TransportListener** (p. 3289) is notified of a Failure.

**Parameters:**

*error* - The CMS Exception that was thrown.

**Exceptions:**

*Exception* if an error occurs.

**6.306.2.15** bool activemq::transport::failover::FailoverTransport::isBackup () const [inline]

**6.306.2.16** virtual bool activemq::transport::failover::FailoverTransport::isClosed () const [inline, virtual]

Has the **Transport** (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the **Transport** (p. 3273)

Implements **activemq::transport::Transport** (p. 3275).

**6.306.2.17** virtual bool activemq::transport::failover::FailoverTransport::isConnected () const [inline, virtual]

Is the **Transport** (p. 3273) Connected to its Broker.

**Returns:**

true if a connection has been made.

Implements **activemq::transport::Transport** (p. 3275).

**6.306.2.18** virtual bool activemq::transport::failover::FailoverTransport::isFaultTolerant () const [inline, virtual]

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

**Returns:**

true if the **Transport** (p. 3273) is fault tolerant.

Implements **activemq::transport::Transport** (p. 3275).

**6.306.2.19** `bool activemq::transport::failover::FailoverTransport::isInitialized () const [inline]`

Returns true if the **Transport** (p. 3273) has been initialized by a BrokerInfo command.

**Returns:**

true if the **Transport** (p. 3273) has been initialized by a BrokerInfo command.

**6.306.2.20** `virtual bool activemq::transport::failover::FailoverTransport::isPending () const [virtual]`

**Returns:**

true if there is a need for the iterate method to be called by this classes task runner.

Implements **activemq::threads::CompositeTask** (p. 1090).

**6.306.2.21** `bool activemq::transport::failover::FailoverTransport::isRandomize () const [inline]`

**6.306.2.22** `bool activemq::transport::failover::FailoverTransport::isTrackMessages () const [inline]`

**6.306.2.23** `bool activemq::transport::failover::FailoverTransport::isUseExponentialBackOff () const [inline]`

**6.306.2.24** `virtual bool activemq::transport::failover::FailoverTransport::iterate () [virtual]`

Performs the actual Reconnect operation for the **FailoverTransport** (p. 1612), when a connection is made this method returns false to indicate it doesn't need to run again, otherwise it returns true to indicate its still trying to connect.

**Returns:**

false to indicate a connection, true to indicate it needs to try again.

Implements **activemq::threads::Task** (p. 3148).

**6.306.2.25** `virtual Transport* activemq::transport::failover::FailoverTransport::narrow (const std::type_info & typeId) [inline, virtual]`

Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.

**Parameters:**

*typeId* - The type\_info of the Object we are searching for.

**Returns:**

the requested Object. or NULL if its not in this chain.

Implements **activemq::transport::Transport** (p. 3275).

References **activemq::transport::Transport::narrow()**.

**6.306.2.26**    **virtual void activemq::transport::failover::FailoverTransport::oneway**  
                  **(const Pointer< Command > & *command*)**  
                  **throw ( decaf::io::IOException, de-**  
                  **caf::lang::exceptions::UnsupportedOperationException )**  
                  [virtual]

Sends a one-way command. Does not wait for any response from the broker.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3276).

**6.306.2.27**    **virtual void activemq::transport::failover::FailoverTransport::reconnect**  
                  **(const decaf::net::URI & *uri*) throw ( decaf::io::IOException )**  
                  [virtual]

reconnect to another location

**Parameters:**

*uri*

**Exceptions:**

*IOException* on failure of if not supported

Implements **activemq::transport::Transport** (p. 3276).

**6.306.2.28**    **void activemq::transport::failover::FailoverTransport::reconnect ( )**

Indicates that the **Transport** (p. 3273) needs to reconnect to another URI in its list.

**6.306.2.29**    **virtual void activemq::transport::failover::FailoverTransport::removeURI**  
                  **(const List< URI > & *uris*) [virtual]**

Remove a URI from the set of URI's that represents the set of Transports that this **Transport** (p. 3273) is composed of, removing a URI for which the composite has created a connected **Transport** (p. 3273) should result in that **Transport** (p. 3273) being disposed of.

**Parameters:**

*uris* The new URIs to remove to the set this composite maintains.

Implements **activemq::transport::CompositeTransport** (p. 1096).

**6.306.2.30** `virtual Pointer<Response> activemq::transport::failover::FailoverTransport::request (const Pointer< Command > & command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given command to the broker and then waits for the response.

**Parameters:**

*command* - The command to be sent.  
*timeout* - The time to wait for this response.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.  
*UnsupportedOperationException* if this method is not implemented by this transport.

Implements `activemq::transport::Transport` (p. 3276).

**6.306.2.31** `virtual Pointer<Response> activemq::transport::failover::FailoverTransport::request (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given command to the broker and then waits for the response.

**Parameters:**

*command* the command to be sent.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.  
*UnsupportedOperationException* if this method is not implemented by this transport.

Implements `activemq::transport::Transport` (p. 3277).

**6.306.2.32** `void activemq::transport::failover::FailoverTransport::restoreTransport (const Pointer< Transport > & transport) throw ( decaf::io::IOException ) [protected]`

Given a **Transport** (p. 3273) restore the state of the Client's connection to the Broker using the data accumulated in the State Tracker.

**Parameters:**

*transport* The new **Transport** (p. 3273) connected to the Broker.



**Exceptions:**

***IOException*** if an errors occurs while restoring the old state.

**6.306.2.33** void activemq::transport::failover::FailoverTransport::setBackOffMultiplier (long long *value*) [inline]

**6.306.2.34** void activemq::transport::failover::FailoverTransport::setBackup (bool *value*) [inline]

**6.306.2.35** void activemq::transport::failover::FailoverTransport::setBackupPoolSize (int *value*) [inline]

**6.306.2.36** void activemq::transport::failover::FailoverTransport::setInitialized (bool *value*) [inline]

Sets the initialized state of this **Transport** (p. 3273) to true.

**Parameters:**

*value* - true if this **Transport** (p. 3273) has been initialized.

- 6.306.2.37 `void activemq::transport::failover::FailoverTransport::setInitialReconnectDelay (long long value) [inline]`
- 6.306.2.38 `void activemq::transport::failover::FailoverTransport::setMaxCacheSize (int value) [inline]`
- 6.306.2.39 `void activemq::transport::failover::FailoverTransport::setMaxReconnectAttempts (int value) [inline]`
- 6.306.2.40 `void activemq::transport::failover::FailoverTransport::setMaxReconnectDelay (long long value) [inline]`
- 6.306.2.41 `void activemq::transport::failover::FailoverTransport::setRandomize (bool value) [inline]`
- 6.306.2.42 `void activemq::transport::failover::FailoverTransport::setReconnectDelay (long long value) [inline]`
- 6.306.2.43 `void activemq::transport::failover::FailoverTransport::setTimeout (long long value) [inline]`
- 6.306.2.44 `void activemq::transport::failover::FailoverTransport::setTrackMessages (bool value) [inline]`
- 6.306.2.45 `virtual void activemq::transport::failover::FailoverTransport::setTransportListener (TransportListener * listener) [virtual]`

Sets the observer of asynchronous events from this transport.

**Parameters:**

*listener* the listener of transport events.

Implements `activemq::transport::Transport` (p. 3277).

- 6.306.2.46 `void activemq::transport::failover::FailoverTransport::setUseExponentialBackOff (bool value) [inline]`
- 6.306.2.47 `virtual void activemq::transport::failover::FailoverTransport::setWireFormat (const Pointer< wireformat::WireFormat > &wireFormat AMQCPP_UNUSED) [inline, virtual]`

Sets the WireFormat instance to use.

**Parameters:**

*wireFormat* The WireFormat the object used to encode / decode commands.

**6.306.2.48** virtual void activemq::transport::failover::FailoverTransport::start ()  
throw ( decaf::io::IOException ) [virtual]

Starts this transport object and creates the thread for polling on the input stream for commands. If this object has been closed, throws an exception. Before calling start, the caller must set the IO streams and the reader and writer objects.

**Exceptions:**

*IOException* if an error occurs or if this transport has already been closed.

Implements **activemq::transport::Transport** (p. 3278).

**6.306.2.49** virtual void activemq::transport::failover::FailoverTransport::stop ()  
throw ( decaf::io::IOException ) [virtual]

Stop the **Transport** (p. 3273).

**Exceptions:**

*IOException* if an error occurs while stopping the **Transport** (p. 3273).

Implements **activemq::transport::Transport** (p. 3278).

## 6.306.3 Friends And Related Function Documentation

**6.306.3.1** friend class FailoverTransportListener [friend]

The documentation for this class was generated from the following file:

- src/main/activemq/transport/failover/**FailoverTransport.h**

## 6.307 activemq::transport::failover::FailoverTransportFactory Class Reference

Creates an instance of a **FailoverTransport** (p.1612).

#include <src/main/activemq/transport/failover/FailoverTransportFactory.h> Inheritance diagram for activemq::transport::failover::FailoverTransportFactory:

### Public Member Functions

- virtual **~FailoverTransportFactory** ()
- virtual **Pointer< Transport > create** (const **decaf::net::URI** &location) throw ( exceptions::ActiveMQException )

*Creates a fully configured **Transport** (p.3273) instance which could be a chain of filters and transports.*

- virtual **Pointer< Transport > createComposite** (const **decaf::net::URI** &location) throw ( exceptions::ActiveMQException )

*Creates a slimed down **Transport** (p.3273) instance which can be used in composite transport instances.*

### Protected Member Functions

- virtual **Pointer< Transport > doCreateComposite** (const **decaf::net::URI** &location, const **decaf::util::Properties** &properties) throw ( exceptions::ActiveMQException )

*Creates a slimed down **Transport** (p.3273) instance which can be used in composite transport instances.*

### 6.307.1 Detailed Description

Creates an instance of a **FailoverTransport** (p.1612).

Since:

3.0

## 6.307.2 Constructor & Destructor Documentation

**6.307.2.1** virtual  
activemq::transport::failover::FailoverTransportFactory::~FailoverTransportFactory  
( ) [inline, virtual]

## 6.307.3 Member Function Documentation

**6.307.3.1** virtual Pointer<Transport> ac-  
tivemq::transport::failover::FailoverTransportFactory::create (const  
decaf::net::URI & *location*) throw ( exceptions::ActiveMQException )  
[virtual]

Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements **activemq::transport::TransportFactory** (p. 3279).

**6.307.3.2** virtual Pointer<Transport> ac-  
tivemq::transport::failover::FailoverTransportFactory::createComposite  
(const decaf::net::URI & *location*) throw ( excep-  
tions::ActiveMQException ) [virtual]

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements **activemq::transport::TransportFactory** (p. 3280).

**6.307.3.3** virtual Pointer<Transport> ac-  
tivemq::transport::failover::FailoverTransportFactory::doCreateComposite  
(const decaf::net::URI & *location*, const decaf::util::Properties &  
*properties*) throw ( exceptions::ActiveMQException ) [protected,  
virtual]

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.

**Parameters:**

*location* - URI location to connect to.

*properties* - Properties to apply to the transport.

**Returns:**

Pointer to a new **FailoverTransport** (p. 1612) instance.

**Exceptions:**

*ActiveMQException* if an error occurs

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/failover/FailoverTransportFactory.h`

## 6.308 activemq::transport::failover::FailoverTransportListener Class Reference

Utility class used by the **Transport** (p. 3273) to perform the work of responding to events from the active **Transport** (p. 3273).

#include <src/main/activemq/transport/failover/FailoverTransportListener.h> Inheritance diagram for activemq::transport::failover::FailoverTransportListener:

### Public Member Functions

- **FailoverTransportListener** (**FailoverTransport** \*parent)
- virtual **~FailoverTransportListener** ()
- virtual void **onCommand** (const **Pointer**< **Command** > &command)

*Event handler for the receipt of a command.*

- virtual void **onException** (const **decaf::lang::Exception** &ex)

*Event handler for an exception from a command transport.*

- virtual void **transportInterrupted** ()

*The transport has suffered an interruption from which it hopes to recover.*

- virtual void **transportResumed** ()

*The transport has resumed after an interruption.*

### 6.308.1 Detailed Description

Utility class used by the **Transport** (p. 3273) to perform the work of responding to events from the active **Transport** (p. 3273).

**Since:**

3.0

## 6.308.2 Constructor & Destructor Documentation

- 6.308.2.1** `activemq::transport::failover::FailoverTransportListener::FailoverTransportListener(FailoverTransport * parent)`
- 6.308.2.2** `virtual activemq::transport::failover::FailoverTransportListener::~~FailoverTransportListener()` [virtual]

## 6.308.3 Member Function Documentation

- 6.308.3.1** `virtual void activemq::transport::failover::FailoverTransportListener::onCommand(const Pointer< Command > & command)` [virtual]

Event handler for the receipt of a command. The transport passes off all received commands to its listeners, the listener then owns the Object. If there is no registered listener the **Transport** (p. 3273) deletes the command upon receipt.

### Parameters:

*command* the received command object.

Implements `activemq::transport::TransportListener` (p. 3289).

- 6.308.3.2** `virtual void activemq::transport::failover::FailoverTransportListener::onException(const decaf::lang::Exception & ex)` [virtual]

Event handler for an exception from a command transport.

### Parameters:

*ex* The exception.

Implements `activemq::transport::TransportListener` (p. 3290).

- 6.308.3.3** `virtual void activemq::transport::failover::FailoverTransportListener::transportInterrupted()` [virtual]

The transport has suffered an interruption from which it hopes to recover.

Implements `activemq::transport::TransportListener` (p. 3290).

- 6.308.3.4** `virtual void activemq::transport::failover::FailoverTransportListener::transportResumed()` [virtual]

The transport has resumed after an interruption.

Implements `activemq::transport::TransportListener` (p. 3290).

The documentation for this class was generated from the following file:



- src/main/activemq/transport/failover/**FailoverTransportListener.h**

## 6.309 decaf::util::logging::Filter Class Reference

A **Filter** (p. 1630) can be used to provide fine grain control over what is logged, beyond the control provided by log levels.

```
#include <src/main/decaf/util/logging/Filter.h>
```

### Public Member Functions

- virtual **~Filter** ()
- virtual bool **isLoggable** (const **LogRecord** &record) const =0

*Check if a given log record should be published.*

### 6.309.1 Detailed Description

A **Filter** (p.1630) can be used to provide fine grain control over what is logged, beyond the control provided by log levels. Each **Logger** (p.2028) and each **Handler** (p.1709) can have a filter associated with it. The **Logger** (p.2028) or **Handler** (p.1709) will call the **isLoggable** method to check if a given **LogRecord** (p.2050) should be published. If **isLoggable** returns false, the **LogRecord** (p.2050) will be discarded.

### 6.309.2 Constructor & Destructor Documentation

**6.309.2.1** virtual decaf::util::logging::Filter::~Filter () [inline, virtual]

### 6.309.3 Member Function Documentation

**6.309.3.1** virtual bool decaf::util::logging::Filter::isLoggable (const **LogRecord** &*record*) const [pure virtual]

Check if a given log record should be published.

#### Parameters:

*record* the **LogRecord** (p.2050) to check.

#### Returns:

true if the record is loggable.

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**Filter.h**

## 6.310 decaf::io::FilterInputStream Class Reference

A **FilterInputStream** (p. 1631) contains some other input stream, which it uses as its basic source of data, possibly transforming the data along the way or providing additional functionality.

#include <src/main/decaf/io/FilterInputStream.h> Inheritance diagram for decaf::io::FilterInputStream:

### Public Member Functions

- **FilterInputStream** (**InputStream** \*inputStream, bool own=false)  
*Constructor to create a wrapped **InputStream** (p. 1740).*
- virtual ~**FilterInputStream** ()
- virtual std::size\_t **available** () const throw ( **IOException** )  
*Returns the number of bytes that can be read from this input stream without blocking.*
- virtual int **read** () throw ( **IOException** )  
*Reads the next byte of data from this input stream.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( **IOException**, lang::exceptions::NullPointerException )  
*Reads up to len bytes of data from this input stream into an array of bytes.*
- virtual void **close** () throw ( io::IOException )  
*Close the Stream, the **FilterOutputStream** (p. 1640) simply calls the close method of the underlying stream.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Skips over and discards n bytes of data from this input stream.*
- virtual void **mark** (int readLimit)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( **IOException** )  
*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const  
*Determines if this input stream supports the mark and reset methods.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*

- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

## Protected Member Functions

- virtual bool **isClosed** () const

## Protected Attributes

- **InputStream \* inputStream**
- **util::concurrent::Mutex mutex**
- bool **own**
- volatile bool **closed**

### 6.310.1 Detailed Description

A **FilterInputStream** (p. 1631) contains some other input stream, which it uses as its basic source of data, possibly transforming the data along the way or providing additional functionality. The class **FilterInputStream** (p. 1631) itself simply overrides all methods of **InputStream** (p. 1740) with versions that pass all requests to the contained input stream. Subclasses of **FilterInputStream** (p. 1631) may further override some of these methods and may also provide additional methods and fields.

## 6.310.2 Constructor & Destructor Documentation

### 6.310.2.1 decaf::io::FilterInputStream::FilterInputStream (InputStream \* *inputStream*, bool *own* = false) [inline]

Constructor to create a wrapped **InputStream** (p.1740).

#### Parameters:

*inputStream* the stream to wrap and filter

*own* indicates if we own the stream object, defaults to false

### 6.310.2.2 virtual decaf::io::FilterInputStream::~FilterInputStream () [inline, virtual]

References DECAF\_CATCH\_NOTHROW, and DECAF\_CATCHALL\_NOTHROW.

## 6.310.3 Member Function Documentation

### 6.310.3.1 virtual std::size\_t decaf::io::FilterInputStream::available () const throw (IOException) [inline, virtual]

Returns the number of bytes that can be read from this input stream without blocking. This method simply performs in.available() and returns the result.

#### Returns:

the number of bytes available without blocking.

Implements **decaf::io::InputStream** (p.1741).

Reimplemented in **decaf::io::BufferedInputStream** (p.810).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

### 6.310.3.2 virtual void decaf::io::FilterInputStream::close () throw (io::IOException) [inline, virtual]

Close the Stream, the **FilterOutputStream** (p.1640) simply calls the close method of the underlying stream.

#### Exceptions:

*Exception*

Implements **decaf::io::Closeable** (p.1019).

Reimplemented in **decaf::io::BufferedInputStream** (p.811).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

**6.310.3.3** `virtual bool decaf::io::FilterInputStream::isClosed () const` [inline, protected, virtual]

**Returns:**

true if this stream has been closed.

**6.310.3.4** `virtual void decaf::io::FilterInputStream::lock () throw ( decaf::lang::exceptions::RuntimeException )` [inline, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.310.3.5** `virtual void decaf::io::FilterInputStream::mark (int readLimit)` [inline, virtual]

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

**Parameters:**

*readLimit* The max bytes read before marked position is invalid.

Implements `decaf::io::InputStream` (p. 1741).

Reimplemented in `decaf::io::BufferedInputStream` (p. 811).

References `DECAF_CATCHALL_NOTHROW`.

**6.310.3.6** `virtual bool decaf::io::FilterInputStream::markSupported () const` [inline, virtual]

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

**Returns:**

true if this stream instance supports marks

Implements `decaf::io::InputStream` (p. 1741).

Reimplemented in `decaf::io::BufferedInputStream` (p. 811).

References `DECAF_CATCHALL_NOTHROW`.

**6.310.3.7** virtual void decaf::io::FilterInputStream::notify ()  
throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3124).

**6.310.3.8** virtual void decaf::io::FilterInputStream::notifyAll ()  
throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3125).

**6.310.3.9** virtual int decaf::io::FilterInputStream::read (unsigned char \* *buffer*,  
std::size\_t *offset*, std::size\_t *bufferSize*) throw ( IOException,  
lang::exceptions::NullPointerException ) [inline, virtual]

Reads up to len bytes of data from this input stream into an array of bytes. This method blocks until some input is available. This method simply performs in.read(b, len) and returns the result.

**Parameters:**

*buffer* (out) the target buffer.

*offset* the position to start reading in the passed buffer.

*bufferSize* the size of the output buffer.

**Returns:**

The number of bytes read or -1 if EOF is detected

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException*

Implements **decaf::io::InputStream** (p. 1742).

Reimplemented in **activemq::io::LoggingInputStream** (p. 2038), **decaf::io::BufferedInputStream** (p. 811), and **decaf::io::DataInputStream** (p. 1381).

References **DECAF\_CATCH\_RETHROW**, and **DECAF\_CATCHALL\_THROW**.

### 6.310.3.10 **virtual int decaf::io::FilterInputStream::read () throw ( IOException )** [inline, virtual]

Reads the next byte of data from this input stream. The value byte is returned as an unsigned char in the range 0 to 255. If no byte is available because the end of the stream has been reached, the value -1 is returned. This method blocks until input data is available, the end of the stream is detected, or an exception is thrown. This method simply performs `in.read()` and returns the result.

#### Returns:

The next byte.

#### Exceptions:

**IOException** (p. 1820) thrown if an error occurs.

Implements **decaf::io::InputStream** (p. 1742).

Reimplemented in **activemq::io::LoggingInputStream** (p. 2039), **decaf::io::BufferedInputStream** (p. 812), and **decaf::io::DataInputStream** (p. 1382).

References **DECAF\_CATCH\_RETHROW**, and **DECAF\_CATCHALL\_THROW**.

Referenced by **decaf::io::DataInputStream::read()**.

### 6.310.3.11 **virtual void decaf::io::FilterInputStream::reset () throw ( IOException )** [inline, virtual]

Repositions this stream to the position at the time the mark method was last called on this input stream. If the method `markSupported` returns true, then: \* If the method `mark` has not been called since the stream was created, or the number of bytes read from the stream since mark was last called is larger than the argument to mark at that last call, then an **IOException** (p. 1820) might be thrown. \* If such an **IOException** (p. 1820) is not thrown, then the stream is reset to a state such that all the bytes read since the most recent call to mark (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the read method, followed by any bytes that otherwise would have been the next input data as of the time of the call to reset. If the method `markSupported` returns false, then: \* The call to reset may throw an **IOException** (p. 1820). \* If an **IOException** (p. 1820) is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the read method depend on the particular type of the input stream.

#### Exceptions:

**IOException** (p. 1820)



Implements **decaf::io::InputStream** (p. 1742).

Reimplemented in **decaf::io::BufferedInputStream** (p. 812).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

**6.310.3.12** `virtual std::size_t decaf::io::FilterInputStream::skip  
(std::size_t num) throw ( io::IOException,  
lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Skips over and discards n bytes of data from this input stream. The skip method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from any of a number of conditions; reaching end of file before n bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If n is negative, no bytes are skipped.

The skip method of **InputStream** (p. 1740) creates a byte array and then repeatedly reads into it until n bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

#### Parameters:

*num* - the number of bytes to skip

#### Returns:

total bytes skipped

#### Exceptions:

*IOException* (p. 1820) if an error occurs

Implements **decaf::io::InputStream** (p. 1743).

Reimplemented in **decaf::io::BufferedInputStream** (p. 812), and **decaf::io::DataInputStream** (p. 1387).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

**6.310.3.13** `virtual bool decaf::io::FilterInputStream::tryLock () throw (  
decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

#### Returns:

true if the lock was acquired, false if it is already held by another thread.

#### Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.310.3.14** `virtual void decaf::io::FilterInputStream::unlock () throw (  
decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.310.3.15** **virtual void decaf::io::FilterInputStream::wait (long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )** [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

***millisecs*** the time in milliseconds to wait, or WAIT\_INFINITE

***nanos*** additional time in nanoseconds with a range of 0-999999

**Exceptions:**

***IllegalArgumentException*** if an error occurs or the nanos argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.310.3.16** **virtual void decaf::io::FilterInputStream::wait (long long *millisecs*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )** [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

***millisecs*** the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.310.3.17** `virtual void decaf::io::FilterInputStream::wait ()  
throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

### 6.310.4 Field Documentation

**6.310.4.1** `volatile bool decaf::io::FilterInputStream::closed [protected]`

**6.310.4.2** `InputStream* decaf::io::FilterInputStream::inputStream [protected]`

**6.310.4.3** `util::concurrent::Mutex decaf::io::FilterInputStream::mutex [protected]`

**6.310.4.4** `bool decaf::io::FilterInputStream::own [protected]`

The documentation for this class was generated from the following file:

- `src/main/decaf/io/FilterInputStream.h`

## 6.311 decaf::io::FilterOutputStream Class Reference

This class is the superclass of all classes that filter output streams.

#include <src/main/decaf/io/FilterOutputStream.h> Inheritance diagram for decaf::io::FilterOutputStream:

### Public Member Functions

- **FilterOutputStream** (**OutputStream** \*outputStream, bool own=false)  
*Constructor, creates a wrapped output stream.*
- virtual ~**FilterOutputStream** ()
- virtual void **write** (unsigned char c) throw ( IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset DECAF\_UNUSED, std::size\_t len) throw ( IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** () throw ( IOException )  
*Flushes any pending writes in this output stream.*
- virtual void **close** () throw ( io::IOException )  
*Close the Stream.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

## Protected Member Functions

- virtual bool **isClosed** () const

## Protected Attributes

- **OutputStream \* outputStream**
- **util::concurrent::Mutex mutex**
- bool **own**
- volatile bool **closed**

### 6.311.1 Detailed Description

This class is the superclass of all classes that filter output streams. These streams sit on top of an already existing output stream (the underlying output stream) which it uses as its basic sink of data, but possibly transforming the data along the way or providing additional functionality.

The class **FilterOutputStream** (p. 1640) itself simply overrides all methods of **OutputStream** (p. 2470) with versions that pass all requests to the underlying output stream. Subclasses of **FilterOutputStream** (p. 1640) may further override some of these methods as well as provide additional methods and fields.

Due to the lack of garbage collection in C++ a design decision was made to add a boolean parameter to the constructor indicating if the wrapped **InputStream** (p. 1740) is owned by this object. That way creation of the underlying stream can occur in a Java like way. Ex:

```
DataOutputStream (p. 1388) os = new DataOutputStream (p. 1388)( new OutputStream(), true )
```

### 6.311.2 Constructor & Destructor Documentation

#### 6.311.2.1 decaf::io::FilterOutputStream::FilterOutputStream (OutputStream \* outputStream, bool own = false) [inline]

Constructor, creates a wrapped output stream.

**Parameters:**

*outputStream* the **OutputStream** (p. 2470) to wrap

*own* If true, this object will control the lifetime of the output stream that it encapsulates.

**6.311.2.2** `virtual decaf::io::FilterOutputStream::~~FilterOutputStream () [inline, virtual]`

References `DECAF_CATCH_NOTHROW`, and `DECAF_CATCHALL_NOTHROW`.

**6.311.3 Member Function Documentation**

**6.311.3.1** `virtual void decaf::io::FilterOutputStream::close () throw ( io::IOException ) [inline, virtual]`

Close the Stream. The close method of **FilterOutputStream** (p. 1640) calls its flush method, and then calls the close method of its underlying output stream, it then destroys the output stream if it is the owner.

**Exceptions:**

*Exception*

Implements **decaf::io::Closeable** (p. 1019).

Reimplemented in **decaf::io::BufferedOutputStream** (p. 815).

References `DECAF_CATCH_RETHROW`, and `DECAF_CATCHALL_THROW`.

**6.311.3.2** `virtual void decaf::io::FilterOutputStream::flush () throw ( IOException ) [inline, virtual]`

Flushes any pending writes in this output stream. The flush method of **FilterOutputStream** (p. 1640) calls the flush method of its underlying output stream

**Exceptions:**

*IOException* (p. 1820)

Implements **decaf::io::OutputStream** (p. 2470).

Reimplemented in **decaf::io::BufferedOutputStream** (p. 815).

References `DECAF_CATCH_RETHROW`, and `DECAF_CATCHALL_THROW`.

**6.311.3.3** `virtual bool decaf::io::FilterOutputStream::isClosed () const [inline, protected, virtual]`

**Returns:**

true if this stream has been closed.

**6.311.3.4** virtual void decaf::io::FilterOutputStream::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements decaf::util::concurrent::Synchronizable (p. 3123).

**6.311.3.5** virtual void decaf::io::FilterOutputStream::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3124).

**6.311.3.6** virtual void decaf::io::FilterOutputStream::notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3125).

**6.311.3.7** virtual bool decaf::io::FilterOutputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3126).

**6.311.3.8** `virtual void decaf::io::FilterOutputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3127).

**6.311.3.9** `virtual void decaf::io::FilterOutputStream::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3128).

**6.311.3.10** `virtual void decaf::io::FilterOutputStream::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.



**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.311.3.11** virtual void decaf::io::FilterOutputStream::wait ()  
 throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException,  
 decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

**6.311.3.12** virtual void decaf::io::FilterOutputStream::write (const unsigned char \*  
*buffer*, std::size\_t offset *DECAF\_UNUSED*, std::size\_t *len*) throw  
 ( IOException, lang::exceptions::NullPointerException ) [inline,  
 virtual]

Writes an array of bytes to the output stream. The write method of **FilterOutputStream** (p. 1640) calls the write method of one argument on each byte to output.

**Parameters:**

*buffer* The array of bytes to write.

*offset, the* position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* thrown if buffer is Null.

Implements **decaf::io::OutputStream** (p. 2471).

Reimplemented in **activemq::io::LoggingOutputStream** (p. 2040), **decaf::io::BufferedOutputStream** (p. 815), and **decaf::io::DataOutputStream** (p. 1390).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

**6.311.3.13** `virtual void decaf::io::FilterOutputStream::write (const std::vector< unsigned char > & buffer) throw ( IOException )` [inline, virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::OutputStream` (p. 2471).

Reimplemented in `decaf::io::BufferedOutputStream` (p. 816), and `decaf::io::DataOutputStream` (p. 1390).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

**6.311.3.14** `virtual void decaf::io::FilterOutputStream::write (unsigned char c) throw ( IOException )` [inline, virtual]

Writes a single byte to the output stream. The write method of `FilterOutputStream` (p. 1640) calls the write method of its underlying output stream, that is, it performs `out.write(b)`.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implements `decaf::io::OutputStream` (p. 2471).

Reimplemented in `activemq::io::LoggingOutputStream` (p. 2041), `decaf::io::BufferedOutputStream` (p. 816), and `decaf::io::DataOutputStream` (p. 1390).

References DECAF\_CATCH\_RETHROW, and DECAF\_CATCHALL\_THROW.

## 6.311.4 Field Documentation

**6.311.4.1** `volatile bool decaf::io::FilterOutputStream::closed` [protected]

**6.311.4.2** `util::concurrent::Mutex decaf::io::FilterOutputStream::mutex` [protected]

**6.311.4.3** `OutputStream* decaf::io::FilterOutputStream::outputStream` [protected]

**6.311.4.4** `bool decaf::io::FilterOutputStream::own` [protected]

The documentation for this class was generated from the following file:

- `src/main/decaf/io/FilterOutputStream.h`

## 6.312 decaf::lang::Float Class Reference

#include <src/main/decaf/lang/Float.h> Inheritance diagram for decaf::lang::Float:

### Public Member Functions

- **Float** (float value)
- **Float** (double value)
- **Float** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual ~**Float** ()
- virtual int **compareTo** (const **Float** &f) const  
*Compares this **Float** (p. 1647) instance with another.*
- bool **equals** (const **Float** &f) const
- virtual bool **operator==** (const **Float** &f) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Float** &f) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const float &f) const  
*Compares this **Float** (p. 1647) instance with another.*
- bool **equals** (const float &f) const
- virtual bool **operator==** (const float &f) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const float &f) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*

- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*
- bool **isInfinite** () const
- bool **isNaN** () const

## Static Public Member Functions

- static int **compare** (float f1, float f2)  
*Compares the two specified double values.*
- static int **floatToIntBits** (float value)  
*Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "single format" bit layout.*
- static int **floatToRawIntBits** (float value)  
*Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "single format" bit layout, preserving Not-a-Number (NaN) values.*
- static float **intBitsToFloat** (int bits)  
*Returns the float value corresponding to a given bit representation.*
- static bool **isInfinite** (float value)
- static bool **isNaN** (float value)
- static float **parseFloat** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Returns a new float initialized to the value represented by the specified string, as performed by the valueOf method of class **Float** (p. 1647).*
- static std::string **toHexString** (float value)  
*Returns a hexadecimal string representation of the float argument.*
- static std::string **toString** (float value)  
*Returns a string representation of the float argument.*
- static **Float** **valueOf** (float value)  
*Returns a **Float** (p. 1647) instance representing the specified float value.*
- static **Float** **valueOf** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Returns a **Float** (p. 1647) instance that wraps a primitive float which is parsed from the string value passed.*

## Static Public Attributes

- static const int **SIZE** = 32  
*The size in bits of the primitive int type.*
- static const float **MAX\_VALUE**

*The maximum value that the primitive type can hold.*

- static const float **MIN\_VALUE**

*The minimum value that the primitive type can hold.*

- static const float **NaN**

*Constant for the Not a **Number** (p. 2432) Value.*

- static const float **POSITIVE\_INFINITY**

*Constant for Positive Infinity.*

- static const float **NEGATIVE\_INFINITY**

*Constant for Negative Infinity.*

## 6.312.1 Constructor & Destructor Documentation

### 6.312.1.1 decaf::lang::Float::Float (float *value*)

#### Parameters:

*value* - the primitive type to wrap

### 6.312.1.2 decaf::lang::Float::Float (double *value*)

#### Parameters:

*value* - the primitive type to wrap

### 6.312.1.3 decaf::lang::Float::Float (const std::string & *value*) throw ( exceptions::NumberFormatException )

#### Parameters:

*value* - the string to convert to a primitive type to wrap

### 6.312.1.4 virtual decaf::lang::Float::~~Float () [inline, virtual]

## 6.312.2 Member Function Documentation

### 6.312.2.1 virtual unsigned char decaf::lang::Float::byteValue () const [inline, virtual]

Answers the byte value which the receiver represents.

#### Returns:

byte the value of the receiver.

Reimplemented from **decaf::lang::Number** (p. 2432).

**6.312.2.2 static int decaf::lang::Float::compare (float *f1*, float *f2*) [static]**

Compares the two specified double values. The sign of the integer value returned is the same as that of the integer that would be returned by the call: `Float( f1 ).compareTo( Float( f2 ) )`

**Parameters:**

*f1* - the first double to compare

*f2* - the second double to compare

**Returns:**

the value 0 if *d1* is numerically equal to *f2*; a value less than 0 if *f1* is numerically less than *f2*; and a value greater than 0 if *f1* is numerically greater than *f2*.

**6.312.2.3 virtual int decaf::lang::Float::compareTo (const float & *f*) const [virtual]**

Compares this **Float** (p. 1647) instance with another.

**Parameters:**

*f* - the **Float** (p. 1647) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable< float >** (p. 1083).

**6.312.2.4 virtual int decaf::lang::Float::compareTo (const Float & *f*) const [virtual]**

Compares this **Float** (p. 1647) instance with another.

**Parameters:**

*f* - the **Float** (p. 1647) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable< Float >** (p. 1083).

**6.312.2.5 virtual double decaf::lang::Float::doubleValue () const [inline, virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.312.2.6** `bool decaf::lang::Float::equals (const float & f) const` [inline, virtual]**Parameters:**

*f* - the **Float** (p. 1647) object to compare against.

**Returns:**

true if the two **Float** (p. 1647) Objects have the same value.

Implements **decaf::lang::Comparable**< float > (p. 1084).

**6.312.2.7** `bool decaf::lang::Float::equals (const Float & f) const` [inline, virtual]**Parameters:**

*f* - the **Float** (p. 1647) object to compare against.

**Returns:**

true if the two **Float** (p. 1647) Objects have the same value.

Implements **decaf::lang::Comparable**< Float > (p. 1084).

**6.312.2.8** `static int decaf::lang::Float::floatToIntBits (float value)` [static]

Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "single format" bit layout. Bit 31 (the bit that is selected by the mask 0x80000000) represents the sign of the floating-point number. Bits 30-23 (the bits that are selected by the mask 0x7f800000) represent the exponent. Bits 22-0 (the bits that are selected by the mask 0x007fffff) represent the significand (sometimes called the mantissa) of the floating-point number.

If the argument is positive infinity, the result is 0x7f800000. If the argument is negative infinity, the result is 0xff800000. If the argument is NaN, the result is 0x7fc00000.

In all cases, the result is an integer that, when given to the **intBitsToFloat(int)** (p. 1652) method, will produce a floating-point value the same as the argument to floatToIntBits (except all NaN values are collapsed to a single "canonical" NaN value).

**Parameters:**

*value* - the float to convert to int bits

**Returns:**

the int that holds the float's value

### 6.312.2.9 static int decaf::lang::Float::floatToRawIntBits (float *value*) [static]

Returns a representation of the specified floating-point value according to the IEEE 754 floating-point "single format" bit layout, preserving Not-a-Number (NaN) values. Bit 31 (the bit that is selected by the mask 0x80000000) represents the sign of the floating-point number. Bits 30-23 (the bits that are selected by the mask 0x7f800000) represent the exponent. Bits 22-0 (the bits that are selected by the mask 0x007fffff) represent the significand (sometimes called the mantissa) of the floating-point number.

If the argument is positive infinity, the result is 0x7f800000. If the argument is negative infinity, the result is 0xff800000. If the argument is NaN, the result is the integer representing the actual NaN value. Unlike the floatToIntBits method, intToRawIntBits does not collapse all the bit patterns encoding a NaN to a single "canonical" NaN value.

In all cases, the result is an integer that, when given to the **intBitsToFloat(int)** (p. 1652) method, will produce a floating-point value the same as the argument to floatToRawIntBits.

#### Parameters:

*value* The float to convert to a raw int.

#### Returns:

the raw int value of the float

### 6.312.2.10 virtual float decaf::lang::Float::floatValue () const [inline, virtual]

Answers the float value which the receiver represents.

#### Returns:

float the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

### 6.312.2.11 static float decaf::lang::Float::intBitsToFloat (int *bits*) [static]

Returns the float value corresponding to a given bit representation. The argument is considered to be a representation of a floating-point value according to the IEEE 754 floating-point "single format" bit layout.

If the argument is 0x7f800000, the result is positive infinity. If the argument is 0xff800000, the result is negative infinity. If the argument is any value in the range 0x7f800001 through 0x7fffffff or in the range 0xff800001 through 0xffffffff, the result is a NaN. No IEEE 754 floating-point operation provided by C++ can distinguish between two NaN values of the same type with different bit patterns. Distinct values of NaN are only distinguishable by use of the **Float::floatToRawIntBits** (p. 1652) method.

#### Parameters:

*bits* - the bits of the float encoded as a float

#### Returns:

a new float created from the int bits.



**6.312.2.12** virtual int decaf::lang::Float::intValue () const [inline, virtual]

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.312.2.13** static bool decaf::lang::Float::isInfinite (float *value*) [static]**Parameters:**

*value* - The float to check.

**Returns:**

true if the float is equal to infinity.

**6.312.2.14** bool decaf::lang::Float::isInfinite () const**Returns:**

true if the float is equal to positive infinity.

**6.312.2.15** static bool decaf::lang::Float::isNaN (float *value*) [static]**Parameters:**

*value* - The float to check.

**Returns:**

true if the float is equal to NaN.

**6.312.2.16** bool decaf::lang::Float::isNaN () const**Returns:**

true if the float is equal to NaN.

**6.312.2.17** virtual long long decaf::lang::Float::longValue () const [inline, virtual]

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.312.2.18** `virtual bool decaf::lang::Float::operator< (const float & f) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*f* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< float >` (p.1084).

**6.312.2.19** `virtual bool decaf::lang::Float::operator< (const Float & f) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*f* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< Float >` (p.1084).

**6.312.2.20** `virtual bool decaf::lang::Float::operator== (const float & f) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*f* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< float >` (p.1085).

**6.312.2.21** `virtual bool decaf::lang::Float::operator== (const Float & f) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*f* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable**< **Float** > (p.1085).

### 6.312.2.22 static float decaf::lang::Float::parseFloat (const std::string & *value*) throw ( exceptions::NumberFormatException ) [static]

Returns a new float initialized to the value represented by the specified string, as performed by the valueOf method of class **Float** (p.1647).

**Parameters:**

*value* - the string to parse

**Returns:**

a float parsed from the string

**Exceptions:**

*NumberFormatException*

### 6.312.2.23 virtual short decaf::lang::Float::shortValue () const [inline, virtual]

Answers the short value which the receiver represents.

**Returns:**

short the value of the receiver.

Reimplemented from **decaf::lang::Number** (p.2434).

### 6.312.2.24 static std::string decaf::lang::Float::toHexString (float *value*) [static]

Returns a hexadecimal string representation of the float argument. All characters mentioned below are ASCII characters.

\* If the argument is NaN, the result is the string "NaN". \* Otherwise, the result is a string that represents the sign and magnitude (absolute value) of the argument. If the sign is negative, the first character of the result is '-'; if the sign is positive, no sign character appears in the result. As for the magnitude m: o If m is infinity, it is represented by the string "Infinity"; thus, positive infinity produces the result "Infinity" and negative infinity produces the result "-Infinity". o If m is zero, it is represented by the string "0x0.0p0"; thus, negative zero produces the result "-0x0.0p0" and positive zero produces the result "0x0.0p0". o If m is a float value with a normalized representation, substrings are used to represent the significand and exponent fields. The significand is represented by the characters "0x1." followed by a lowercase hexadecimal representation of the rest of the significand as a fraction. Trailing zeros in the hexadecimal representation are removed unless all the digits are zero, in which case a single zero is used. Next, the exponent is represented by "p" followed by a decimal string of the unbiased exponent as if produced by a call to **Integer.toString** (p.1774) on the exponent value. o If m is a float value with a subnormal representation, the significand is represented by the characters "0x0." followed by a hexadecimal representation of the rest of the significand as a fraction. Trailing zeros in the

hexadecimal representation are removed. Next, the exponent is represented by "p-126". Note that there must be at least one nonzero digit in a subnormal significand.

**Parameters:**

*value* - The float to convert to a string

**Returns:**

the Hex formatted float string.

### 6.312.2.25 static std::string decaf::lang::Float::toString (float *value*) [static]

Returns a string representation of the float argument. All characters mentioned below are ASCII characters.

If the argument is NaN, the result is the string "NaN". Otherwise, the result is a string that represents the sign and magnitude (absolute value) of the argument. If the sign is negative, the first character of the result is '-'; if the sign is positive, no sign character appears in the result. As for the magnitude *m*:  
 o If *m* is infinity, it is represented by the characters "Infinity"; thus, positive infinity produces the result "Infinity" and negative infinity produces the result "-Infinity".  
 o If *m* is zero, it is represented by the characters "0.0"; thus, negative zero produces the result "-0.0" and positive zero produces the result "0.0".  
 o If *m* is greater than or equal to  $10^{-3}$  but less than  $10^7$ , then it is represented as the integer part of *m*, in decimal form with no leading zeroes, followed by '.', followed by one or more decimal digits representing the fractional part of *m*.  
 o If *m* is less than  $10^{-3}$  or greater than or equal to  $10^7$ , then it is represented in so-called "computerized scientific notation." Let *n* be the unique integer such that  $10^n \leq m < 10^{n+1}$ ; then let *a* be the mathematically exact quotient of *m* and  $10^n$  so that  $1 \leq a < 10$ . The magnitude is then represented as the integer part of *a*, as a single decimal digit, followed by '.', followed by decimal digits representing the fractional part of *a*, followed by the letter 'E', followed by a representation of *n* as a decimal integer, as produced by the method **Integer.toString(int)** (p. 1774).

**Parameters:**

*value* - The float to convert to a string

**Returns:**

the formatted float string.

### 6.312.2.26 std::string decaf::lang::Float::toString () const

**Returns:**

this **Float** (p. 1647) Object as a String Representation

### 6.312.2.27 static Float decaf::lang::Float::valueOf (const std::string & *value*) throw ( exceptions::NumberFormatException ) [static]

Returns a **Float** (p. 1647) instance that wraps a primitive float which is parsed from the string value passed.

**Parameters:**

*value* - the string to parse

**Returns:**

a new **Float** (p.1647) instance wrapping the float parsed from value

**Exceptions:**

*NumberFormatException* on error.

**6.312.2.28 static Float decaf::lang::Float::valueOf (float value) [static]**

Returns a **Float** (p.1647) instance representing the specified float value.

**Parameters:**

*value* - float to wrap

**Returns:**

new **Float** (p.1647) instance wrapping the primitive value

**6.312.3 Field Documentation****6.312.3.1 const float decaf::lang::Float::MAX\_VALUE [static]**

The maximum value that the primitive type can hold.

**6.312.3.2 const float decaf::lang::Float::MIN\_VALUE [static]**

The minimum value that the primitive type can hold.

**6.312.3.3 const float decaf::lang::Float::NaN [static]**

Constant for the Not a **Number** (p.2432) Value.

**6.312.3.4 const float decaf::lang::Float::NEGATIVE\_INFINITY [static]**

Constant for Negative Infinity.

**6.312.3.5 const float decaf::lang::Float::POSITIVE\_INFINITY [static]**

Constant for Positive Infinity.

**6.312.3.6 const int decaf::lang::Float::SIZE = 32 [static]**

The size in bits of the primitive int type.

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**Float.h**

## 6.313 decaf::internal::nio::FloatArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/FloatArrayBuffer.h> Inheritance diagram for decaf::internal::nio::FloatArrayBuffer:

### Public Member Functions

- **FloatArrayBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **FloatArrayBuffer** (p. 1658) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **FloatArrayBuffer** (float \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **FloatArrayBuffer** (p. 1658) object that wraps the given array.*
- **FloatArrayBuffer** (ByteBufferPerspective &array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteBufferPerspective** (p. 908) and start at the given offset.*
- **FloatArrayBuffer** (const **FloatArrayBuffer** &other)  
*Create a **FloatArrayBuffer** (p. 1658) that mirrors this one, meaning it shares a reference to this buffers **ByteBufferPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~**FloatArrayBuffer** ()
- virtual float \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the float array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual FloatBuffer \* **asReadOnlyBuffer** () const  
*Creates a new, read-only float buffer that shares this buffer's content.*
- virtual FloatBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual FloatBuffer \* **duplicate** ()  
*Creates a new float buffer that shares this buffer's content.*
- virtual float **get** () throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*
- virtual float **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )

*Absolute get method.*

- virtual bool **hasArray** () const  
*Tells whether or not this buffer is backed by an accessible float array.*
- virtual bool **isReadOnly** () const  
*Tells whether or not this buffer is read-only.*
- virtual FloatBuffer & **put** (float value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the current position, and then increments the position.*
- virtual FloatBuffer & **put** (std::size\_t index, float value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the given index.*
- virtual FloatBuffer \* **slice** () const  
*Creates a new FloatBuffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)  
*Sets this *ByteBuffer* (p. 870) as Read-Only.*

### 6.313.1 Constructor & Destructor Documentation

#### 6.313.1.1 decaf::internal::nio::FloatArrayBuffer::FloatArrayBuffer (std::size\_t capacity, bool readOnly = false)

Creates a **FloatArrayBuffer** (p. 1658) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size of the array, this is the limit we read and write to.  
*readOnly* - should this buffer be read-only, default as false

#### 6.313.1.2 decaf::internal::nio::FloatArrayBuffer::FloatArrayBuffer (float \* array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **FloatArrayBuffer** (p. 1658) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.313.1.3 `decaf::internal::nio::FloatArrayBuffer::FloatArrayBuffer` (`ByteArrayPerspective & array`, `std::size_t offset`, `std::size_t capacity`, `bool readOnly = false`) `throw (` `decaf::lang::exceptions::IndexOutOfBoundsException` `)`

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p.908) and start at the given offset. The capacity and limit of the new **FloatArrayBuffer** (p.1658) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteArrayPerspective** (p.908) to wrap

*offset* - the offset into array where the buffer starts

*capacity* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

#### 6.313.1.4 `decaf::internal::nio::FloatArrayBuffer::FloatArrayBuffer` (`const` `FloatArrayBuffer & other`)

Create a **FloatArrayBuffer** (p.1658) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p.908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **FloatArrayBuffer** (p.1658) this one is to mirror.

#### 6.313.1.5 `virtual decaf::internal::nio::FloatArrayBuffer::~FloatArrayBuffer ()` `[virtual]`

### 6.313.2 Member Function Documentation

#### 6.313.2.1 `virtual float* decaf::internal::nio::FloatArrayBuffer::array ()` `throw ( decaf::lang::exceptions::UnsupportedOperationException,` `decaf::nio::ReadOnlyBufferException )` `[virtual]`

Returns the float array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.



**Returns:**

the array that backs this Buffer

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::FloatBuffer** (p.1667).

**6.313.2.2** `virtual std::size_t decaf::internal::nio::FloatArrayBuffer::arrayOffset  
( ) throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::FloatBuffer** (p.1668).

**6.313.2.3** `virtual FloatBuffer* de-  
caf::internal::nio::FloatArrayBuffer::asReadOnlyBuffer ( )  
const [virtual]`

Creates a new, read-only float buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only float buffer which the caller then owns.

Implements **decaf::nio::FloatBuffer** (p.1668).

**6.313.2.4** `virtual FloatBuffer& decaf::internal::nio::FloatArrayBuffer::compact ( )  
throw ( decaf::nio::ReadOnlyBufferException ) [virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p.807) is copied

to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this FloatBuffer

**Exceptions:**

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::FloatBuffer** (p. 1668).

**6.313.2.5 virtual FloatBuffer\* decaf::internal::nio::FloatArrayBuffer::duplicate ()**  
[virtual]

Creates a new float buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new float Buffer which the caller owns.

Implements **decaf::nio::FloatBuffer** (p. 1669).

**6.313.2.6 virtual float decaf::internal::nio::FloatArrayBuffer::get (std::size\_t index)**  
**const throw ( lang::exceptions::IndexOutOfBoundsException )** [virtual]

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the Buffer where the float is to be read

**Returns:**

the float that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::FloatBuffer** (p. 1670).

**6.313.2.7 virtual float decaf::internal::nio::FloatArrayBuffer::get () throw (**  
**decaf::nio::BufferUnderflowException )** [virtual]

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the float at the current position

**Exceptions:**

*BufferUnderflowException* if there no more data to return

Implements **decaf::nio::FloatBuffer** (p.1671).

#### 6.313.2.8 virtual bool decaf::internal::nio::FloatArrayBuffer::hasArray () const [inline, virtual]

Tells whether or not this buffer is backed by an accessible float array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements **decaf::nio::FloatBuffer** (p.1671).

#### 6.313.2.9 virtual bool decaf::internal::nio::FloatArrayBuffer::isReadOnly () const [inline, virtual]

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::Buffer** (p. 806).

#### 6.313.2.10 virtual FloatBuffer& decaf::internal::nio::FloatArrayBuffer::put (std::size\_t index, float value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]

Writes the given doubles into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the doubles to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::FloatBuffer** (p.1672).

**6.313.2.11** `virtual FloatBuffer& decaf::internal::nio::FloatArrayBuffer::put (float value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* - If this buffer is read-only

Implements `decaf::nio::FloatBuffer` (p.1672).

**6.313.2.12** `virtual void decaf::internal::nio::FloatArrayBuffer::setReadOnly (bool value) [inline, protected, virtual]`

Sets this `ByteBuffer` (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.313.2.13** `virtual FloatBuffer* decaf::internal::nio::FloatArrayBuffer::slice () const [virtual]`

Creates a new `FloatBuffer` whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create `FloatBuffer` which the caller owns.

Implements `decaf::nio::FloatBuffer` (p.1674).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/FloatArrayBuffer.h`

## 6.314 decaf::nio::FloatBuffer Class Reference

This class defines four categories of operations upon float buffers:.

#include <src/main/decaf/nio/FloatBuffer.h> Inheritance diagram for decaf::nio::FloatBuffer:

### Public Member Functions

- virtual **~FloatBuffer** ()
- virtual std::string **toString** () const
- virtual float \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the float array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **FloatBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only float buffer that shares this buffer's content.*
- virtual **FloatBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **FloatBuffer** \* **duplicate** ()=0  
*Creates a new float buffer that shares this buffer's content.*
- virtual float **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*
- virtual float **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **FloatBuffer** & **get** (std::vector< float > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **FloatBuffer** & **get** (float \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible float array.*
- **FloatBuffer** & **put** (**FloatBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the floats remaining in the given source buffer into this buffer.*

- **FloatBuffer** & **put** (const float \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )  
*This method transfers floats into this buffer from the given source array.*
- **FloatBuffer** & **put** (std::vector< float > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )  
*This method transfers the entire content of the given source floats array into this buffer.*
- virtual **FloatBuffer** & **put** (float value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes the given floats into this buffer at the current position, and then increments the position.*
- virtual **FloatBuffer** & **put** (std::size\_t index, float value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )  
*Writes the given floats into this buffer at the given index.*
- virtual **FloatBuffer** \* **slice** () const =0  
*Creates a new **FloatBuffer** (p. 1665) whose content is a shared subsequence of this buffer's content.*
- virtual int **compareTo** (const **FloatBuffer** &value) const  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const **FloatBuffer** &value) const
- virtual bool **operator==** (const **FloatBuffer** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **FloatBuffer** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **FloatBuffer** \* **allocate** (std::size\_t capacity)  
*Allocates a new Double buffer.*
- static **FloatBuffer** \* **wrap** (float \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new **FloatBuffer** (p. 1665).*
- static **FloatBuffer** \* **wrap** (std::vector< float > &buffer)  
*Wraps the passed STL float Vector in a **FloatBuffer** (p. 1665).*

## Protected Member Functions

- **FloatBuffer** (std::size\_t capacity)  
*Creates a **FloatBuffer** (p. 1665) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.314.1 Detailed Description

This class defines four categories of operations upon float buffers:.

- o Absolute and relative get and put methods that read and write single floats;
- o Relative bulk get methods that transfer contiguous sequences of floats from this buffer into an array; and
- o Relative bulk put methods that transfer contiguous sequences of floats from a float array or some other float buffer into this buffer
- o Methods for compacting, duplicating, and slicing a float buffer.

Double buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing float array into a buffer, or by creating a view of an existing byte buffer

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained.

### 6.314.2 Constructor & Destructor Documentation

#### 6.314.2.1 decaf::nio::FloatBuffer::FloatBuffer (std::size\_t *capacity*) [protected]

Creates a **FloatBuffer** (p. 1665) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size and limit of the **Buffer** (p. 803) in doubles

#### 6.314.2.2 virtual decaf::nio::FloatBuffer::~~FloatBuffer () [inline, virtual]

### 6.314.3 Member Function Documentation

#### 6.314.3.1 static FloatBuffer\* decaf::nio::FloatBuffer::allocate (std::size\_t *capacity*) [static]

Allocates a new Double buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

##### Parameters:

*capacity* - The size of the Double buffer in floats

##### Returns:

the **FloatBuffer** (p. 1665) that was allocated, caller owns.

#### 6.314.3.2 virtual float\* decaf::nio::FloatBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]

Returns the float array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this **Buffer** (p. 803)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1660).

**6.314.3.3** `virtual std::size_t decaf::nio::FloatBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1661).

**6.314.3.4** `virtual FloatBuffer* decaf::nio::FloatBuffer::asReadOnlyBuffer () const [pure virtual]`

Creates a new, read-only float buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only float buffer which the caller then owns.

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1661).

**6.314.3.5** `virtual FloatBuffer& decaf::nio::FloatBuffer::compact () throw ( ReadOnlyBufferException ) [pure virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p. 807) is copied



to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **FloatBuffer** (p. 1665)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1661).

**6.314.3.6 virtual int decaf::nio::FloatBuffer::compareTo (const FloatBuffer & value)  
const [virtual]**

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.314.3.7 virtual FloatBuffer\* decaf::nio::FloatBuffer::duplicate () [pure virtual]**

Creates a new float buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new float **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1662).

**6.314.3.8 virtual bool decaf::nio::FloatBuffer::equals (const FloatBuffer & value)  
const [virtual]****Returns:**

true if this value is considered equal to the passed value.

### 6.314.3.9 FloatBuffer& decaf::nio::FloatBuffer::get (float \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )

Relative bulk get method. This method transfers floats from this buffer into the given destination array. If there are fewer floats remaining in the buffer than are required to satisfy the request, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies `length` floats from this buffer into the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by `length`.

#### Parameters:

*buffer* - pointer to an allocated buffer to fill  
*offset* - position in the buffer to start filling  
*length* - amount of data to put in the passed buffer

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than `length` floats remaining in this buffer  
**NullPointerException** if the passed buffer is null.

### 6.314.3.10 FloatBuffer& decaf::nio::FloatBuffer::get (std::vector< float > *buffer*) throw ( BufferUnderflowException )

Relative bulk get method. This method transfers values from this buffer into the given destination vector. An invocation of this method of the form `src.get(a)` behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call `buffer.resize( N )` before calling this get method.

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than `length` floats remaining in this buffer

### 6.314.3.11 virtual float decaf::nio::FloatBuffer::get (std::size\_t *index*) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]

Absolute get method. Reads the value at the given index.

#### Parameters:

*index* - the index in the **Buffer** (p. 803) where the float is to be read

**Returns:**

the float that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1662).

**6.314.3.12 virtual float decaf::nio::FloatBuffer::get () throw (BufferUnderflowException) [pure virtual]**

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the float at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1662).

**6.314.3.13 virtual bool decaf::nio::FloatBuffer::hasArray () const [pure virtual]**

Tells whether or not this buffer is backed by an accessible float array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1663).

**6.314.3.14 virtual bool decaf::nio::FloatBuffer::operator< (const FloatBuffer &value) const [virtual]**

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.314.3.15** `virtual bool decaf::nio::FloatBuffer::operator==(const FloatBuffer & value) const` [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.314.3.16** `virtual FloatBuffer& decaf::nio::FloatBuffer::put (std::size_t index, float value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )` [pure virtual]

Writes the given floats into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the floats to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::FloatArrayBuffer` (p. 1663).

**6.314.3.17** `virtual FloatBuffer& decaf::nio::FloatBuffer::put (float value) throw ( BufferOverflowException, ReadOnlyBufferException )` [pure virtual]

Writes the given floats into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the floats value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::FloatArrayBuffer` (p. 1664).

### 6.314.3.18 FloatBuffer& decaf::nio::FloatBuffer::put (std::vector< float > & *buffer*) throw ( BufferOverflowException, ReadOnlyBufferException )

This method transfers the entire content of the given source floats array into this buffer. This is the same as calling put( &buffer[0], 0, buffer.size())

#### Parameters:

*buffer* - The buffer whose contents are copied to this **FloatBuffer** (p. 1665)

#### Returns:

a reference to this buffer

#### Exceptions:

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

### 6.314.3.19 FloatBuffer& decaf::nio::FloatBuffer::put (const float \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )

This method transfers floats into this buffer from the given source array. If there are more floats to be copied from the array than remain in this buffer, that is, if *length* > **remaining()** (p. 808), then no floats are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies *length* bytes from the given array into this buffer, starting at the given *offset* in the array and at the current position of this buffer. The position of this buffer is then incremented by *length*.

#### Parameters:

*buffer*- The array from which floats are to be read

*offset*- The offset within the array of the first float to be read;

*length* - The number of floats to be read from the given array

#### Returns:

a reference to this buffer

#### Exceptions:

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

*NullPointerException* if the passed buffer is null.

### 6.314.3.20 FloatBuffer& decaf::nio::FloatBuffer::put (FloatBuffer & *src*) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )

This method transfers the floats remaining in the given source buffer into this buffer. If there are more floats remaining in the source buffer than in this buffer, that is, if *src.remaining()* >

**remaining()** (p. 808), then no floats are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies  $n = \text{src.remaining}()$  floats from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by  $n$ .

**Parameters:**

*src* - the buffer to take floats from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer for the remaining floats in the source buffer

**IllegalArgumentException** - If the source buffer is this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

### 6.314.3.21 `virtual FloatBuffer* decaf::nio::FloatBuffer::slice () const` [pure virtual]

Creates a new **FloatBuffer** (p. 1665) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **FloatBuffer** (p. 1665) which the caller owns.

Implemented in **decaf::internal::nio::FloatArrayBuffer** (p. 1664).

### 6.314.3.22 `virtual std::string decaf::nio::FloatBuffer::toString () const` [virtual]

**Returns:**

a `std::string` describing this object

### 6.314.3.23 `static FloatBuffer* decaf::nio::FloatBuffer::wrap (std::vector< float > & buffer)` [static]

Wraps the passed STL float Vector in a **FloatBuffer** (p. 1665). The new buffer will be backed by the given float array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new **FloatBuffer** (p. 1665) that is backed by *buffer*, caller owns.

**6.314.3.24** `static FloatBuffer* decaf::nio::FloatBuffer::wrap (float *  
array, std::size_t offset, std::size_t length) throw (  
lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new **FloatBuffer** (p. 1665). The new buffer will be backed by the given float array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*array* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new **FloatBuffer** (p. 1665) that is backed by *buffer*, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/FloatBuffer.h`

## 6.315 activemq::commands::FlushCommand Class Reference

#include <src/main/activemq/commands/FlushCommand.h> Inheritance diagram for activemq::commands::FlushCommand:

### Public Member Functions

- **FlushCommand** ()
- virtual **~FlushCommand** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **FlushCommand \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID \_FLUSHCOMMAND** = 15

### Protected Member Functions

- **FlushCommand** (const **FlushCommand** &)
- **FlushCommand & operator=** (const **FlushCommand** &)



## 6.315.1 Constructor & Destructor Documentation

**6.315.1.1** `activemq::commands::FlushCommand::FlushCommand (const FlushCommand &) [inline, protected]`

**6.315.1.2** `activemq::commands::FlushCommand::FlushCommand ()`

**6.315.1.3** `virtual activemq::commands::FlushCommand::~~FlushCommand () [virtual]`

## 6.315.2 Member Function Documentation

**6.315.2.1** `virtual FlushCommand* activemq::commands::FlushCommand::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.315.2.2** `virtual void activemq::commands::FlushCommand::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.315.2.3** `virtual bool activemq::commands::FlushCommand::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.315.2.4** `virtual unsigned char activemq::commands::FlushCommand::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.315.2.5** **FlushCommand& activemq::commands::FlushCommand::operator=**  
(const **FlushCommand** &) [inline, protected]

**6.315.2.6** **virtual std::string activemq::commands::FlushCommand::toString ()**  
const [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.315.2.7** **virtual Pointer<Command> activemq::commands::FlushCommand::visit**  
(activemq::state::CommandVisitor \* *visitor*) throw (  
exceptions::ActiveMQException ) [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.315.3 Field Documentation**

**6.315.3.1** **const unsigned char activemq::commands::FlushCommand::ID\_ -**  
**FLUSHCOMMAND = 15** [static]

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**FlushCommand.h**

## 6.316 activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1679).

#include <src/main/activemq/wireformat/openwire/marshal/v2/FlushCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller:

### Public Member Functions

- **FlushCommandMarshaller** ()
- virtual **~FlushCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.316.1 Detailed Description

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1679). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.316.2 Constructor & Destructor Documentation

**6.316.2.1** `activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::FlushCommandM`  
`() [inline]`

**6.316.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::~~FlushCommand`  
`() [inline, virtual]`

## 6.316.3 Member Function Documentation

**6.316.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.316.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.316.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.316.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.316.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.316.3.6** virtual void activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.316.3.7** virtual void activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/FlushCommandMarshaller.h

## 6.317 activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1683).

#include <src/main/activemq/wireformat/openwire/marshal/v1/FlushCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller:

### Public Member Functions

- **FlushCommandMarshaller** ()
- virtual **~FlushCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.317.1 Detailed Description

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1683). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.317.2 Constructor & Destructor Documentation

**6.317.2.1** `activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::FlushCommandMarshaller()` [inline]

**6.317.2.2** `virtual activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::~~FlushCommandMarshaller()` [inline, virtual]

## 6.317.3 Member Function Documentation

**6.317.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.317.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.317.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.317.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.317.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.317.3.6** virtual void activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.317.3.7** virtual void activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**FlushCommandMarshaller.h**

## 6.318 activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1687).

#include <src/main/activemq/wireformat/openwire/marshal/v3/FlushCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller:

### Public Member Functions

- **FlushCommandMarshaller** ()
- virtual **~FlushCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.318.1 Detailed Description

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1687). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.318.2 Constructor & Destructor Documentation

**6.318.2.1** `activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::FlushCommandMarshaller()` [inline]

**6.318.2.2** `virtual activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::~~FlushCommandMarshaller()` [inline, virtual]

## 6.318.3 Member Function Documentation

**6.318.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.318.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.318.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.318.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.318.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.318.3.6** virtual void activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.318.3.7** virtual void activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/FlushCommandMarshaller.h

## 6.319 activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1691).

#include <src/main/activemq/wireformat/openwire/marshal/v4/FlushCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller:

### Public Member Functions

- **FlushCommandMarshaller** ()
- virtual **~FlushCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.319.1 Detailed Description

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1691). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.319.2 Constructor & Destructor Documentation

**6.319.2.1** `activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::FlushCommandM`  
`() [inline]`

**6.319.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::~~FlushCommand`  
`() [inline, virtual]`

## 6.319.3 Member Function Documentation

**6.319.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.319.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.319.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.319.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.319.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.319.3.6** virtual void activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.319.3.7** virtual void activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/FlushCommandMarshaller.h

## 6.320 activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1695).

#include <src/main/activemq/wireformat/openwire/marshal/v5/FlushCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller:

### Public Member Functions

- **FlushCommandMarshaller** ()
- virtual **~FlushCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.320.1 Detailed Description

Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p.1695). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.320.2 Constructor & Destructor Documentation

**6.320.2.1** `activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::FlushCommandM`  
`() [inline]`

**6.320.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::~~FlushCommand`  
`() [inline, virtual]`

## 6.320.3 Member Function Documentation

**6.320.3.1** `virtual commands::DataStructure* ac-`  
`tivemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::createObject`  
`() const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.320.3.2** `virtual unsigned char ac-`  
`tivemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::getDataStructureT`  
`() const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.320.3.3** `virtual void ac-`  
`tivemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::looseMarshal`  
`(OpenWireFormat * wireFormat, commands::DataStructure *`   
`dataStructure, decaf::io::DataOutputStream * dataOut) throw (`  
`decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 679).

**6.320.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 680).

**6.320.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 681).

**6.320.3.6** virtual void activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.320.3.7** virtual void activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/FlushCommandMarshaller.h

## 6.321 decaf::util::logging::Formatter Class Reference

A **Formatter** (p. 1699) provides support for formatting LogRecords.

#include <src/main/decaf/util/logging/Formatter.h> Inheritance diagram for decaf::util::logging::Formatter:

### Public Member Functions

- virtual **~Formatter** ()
- virtual std::string **format** (const **LogRecord** &record) const =0  
*Format the given log record and return the formatted string.*
- virtual std::string **formatMessage** (const **LogRecord** &record) const =0  
*Format the message string from a log record.*
- virtual std::string **getHead** (const **Handler** \*handler)=0  
*Return the header string for a set of formatted records.*
- virtual std::string **getTail** (const **Handler** \*handler)=0  
*Return the tail string for a set of formatted records.*

### 6.321.1 Detailed Description

A **Formatter** (p. 1699) provides support for formatting LogRecords. Typically each logging **Handler** (p. 1709) will have a **Formatter** (p. 1699) associated with it. The **Formatter** (p. 1699) takes a **LogRecord** (p. 2050) and converts it to a string.

Some formatters (such as the XMLFormatter) need to wrap head and tail strings around a set of formatted records. The getHeader and getTail methods can be used to obtain these strings.

### 6.321.2 Constructor & Destructor Documentation

**6.321.2.1** virtual decaf::util::logging::Formatter::~~Formatter () [inline, virtual]

### 6.321.3 Member Function Documentation

**6.321.3.1** virtual std::string decaf::util::logging::Formatter::format (const **LogRecord** & *record*) const [pure virtual]

Format the given log record and return the formatted string.

#### Parameters:

*record* The Log Record to Format

#### Returns:

the formatted record.

Implemented in **decaf::util::logging::SimpleFormatter** (p. 2960).

**6.321.3.2** `virtual std::string decaf::util::logging::Formatter::formatMessage (const LogRecord & record) const` [pure virtual]

Format the message string from a log record.

**Parameters:**

*record* The Log Record to Format

**Returns:**

the formatted message

Implemented in `decaf::util::logging::SimpleFormatter` (p. 2961).

**6.321.3.3** `virtual std::string decaf::util::logging::Formatter::getHead (const Handler * handler)` [pure virtual]

Return the header string for a set of formatted records. In the default implementation this method should return empty string

**Parameters:**

*handler* the target handler, can be null

**Returns:**

the head string

Implemented in `decaf::util::logging::SimpleFormatter` (p. 2961).

**6.321.3.4** `virtual std::string decaf::util::logging::Formatter::getTail (const Handler * handler)` [pure virtual]

Return the tail string for a set of formatted records. In the default implementation this method should return empty string

**Parameters:**

*handler* the target handler, can be null

**Returns:**

the tail string

Implemented in `decaf::util::logging::SimpleFormatter` (p. 2961).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/Formatter.h`



## 6.322 decaf::util::concurrent::Future< V > Class Template Reference

A **Future** (p. 1701) represents the result of an asynchronous computation.

```
#include <src/main/decaf/util/concurrent/Future.h>
```

### Public Member Functions

- virtual **~Future** ()
- bool **cancel** (bool mayInterruptIfRunning)=0  
*Attempts to cancel execution of this task.*
- bool **isCancelled** () const =0  
*Returns true if this task was canceled before it completed normally.*
- bool **isDone** () const =0  
*Returns true if this task completed.*
- V **get** ()=0 throw ( CancellationException, InterruptedException, ExecutionException )  
*Waits if necessary for the computation to complete, and then retrieves its result.*
- V **get** (long long timeout, **TimeUnit** unit)=0 throw ( InterruptedException, ExecutionException, TimeoutException )  
*Waits if necessary for at most the given time for the computation to complete, and then retrieves its result, if available.*

### 6.322.1 Detailed Description

```
template<typename V> class decaf::util::concurrent::Future< V >
```

A **Future** (p. 1701) represents the result of an asynchronous computation. Methods are provided to check if the computation is complete, to wait for its completion, and to retrieve the result of the computation. The result can only be retrieved using method **get** when the computation has completed, blocking if necessary until it is ready. Cancellation is performed by the **cancel** method. Additional methods are provided to determine if the task completed normally or was canceled. Once a computation has completed, the computation cannot be canceled. If you would like to use a **Future** (p. 1701) for the sake of cancellability but not provide a usable result, you can declare types of the form `Future<void*>` and return null as a result of the underlying task.

## 6.322.2 Constructor & Destructor Documentation

**6.322.2.1** `template<typename V > virtual decaf::util::concurrent::Future< V >::~~Future () [inline, virtual]`

## 6.322.3 Member Function Documentation

**6.322.3.1** `template<typename V > bool decaf::util::concurrent::Future< V >::cancel (bool mayInterruptIfRunning) [pure virtual]`

Attempts to cancel execution of this task. This attempt will fail if the task has already completed, has already been canceled, or could not be canceled for some other reason. If successful, and this task has not started when cancel is called, this task should never run. If the task has already started, then the *mayInterruptIfRunning* parameter determines whether the thread executing this task should be interrupted in an attempt to stop the task.

After this method returns, subsequent calls to **isDone()** (p. 1703) will always return true. Subsequent calls to **isCancelled()** (p. 1703) will always return true if this method returned true.

### Parameters:

*mayInterruptIfRunning* - true if the thread executing this task should be interrupted; otherwise, in-progress tasks are allowed to complete.

### Returns:

false if the task could not be canceled, typically because it has already completed normally;  
true otherwise

**6.322.3.2** `template<typename V > V decaf::util::concurrent::Future< V >::get (long long timeout, TimeUnit unit) throw ( InterruptedException, ExecutionException, TimeoutException ) [pure virtual]`

Waits if necessary for at most the given time for the computation to complete, and then retrieves its result, if available.

### Parameters:

*timeout* - the maximum time to wait

*unit* - the time unit of the timeout argument

### Returns:

the computed result

### Exceptions:

*CancellationException* (p. 965) - if the computation was canceled

*ExecutionException* (p. 1605) - if the computation threw an exception

*InterruptedException* - if the current thread was interrupted while waiting

*TimeoutException* (p. 3185) - if the wait timed out

**6.322.3.3** `template<typename V > V decaf::util::concurrent::Future< V >::get () throw ( CancellationException, InterruptedException, ExecutionException ) [pure virtual]`

Waits if necessary for the computation to complete, and then retrieves its result.

**Returns:**

the computed result.

**Exceptions:**

*CancellationException* (p. 965) - if the computation was canceled  
*ExecutionException* (p. 1605) - if the computation threw an exception  
*InterruptedException* - if the current thread was interrupted while waiting

**6.322.3.4** `template<typename V > bool decaf::util::concurrent::Future< V >::isCancelled () const [pure virtual]`

Returns true if this task was canceled before it completed normally.

**Returns:**

true if this task was canceled before it completed

**6.322.3.5** `template<typename V > bool decaf::util::concurrent::Future< V >::isDone () const [pure virtual]`

Returns true if this task completed. Completion may be due to normal termination, an exception, or cancellation -- in all of these cases, this method will return true.

**Returns:**

true if this task completed

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Future.h`

## 6.323 activemq::transport::correlator::FutureResponse Class Reference

A container that holds a response object.

```
#include <src/main/activemq/transport/correlator/FutureResponse.h>
```

### Public Member Functions

- **FutureResponse** ()
- virtual **~FutureResponse** ()
- virtual const **Pointer< Response > & getResponse** () const  
*Getters for the response property.*
- virtual **Pointer< Response > & getResponse** ()
- virtual const **Pointer< Response > & getResponse** (unsigned int timeout) const  
*Getters for the response property.*
- virtual **Pointer< Response > & getResponse** (unsigned int timeout)
- virtual void **setResponse** (const **Pointer< Response > &response**)  
*Setter for the response property.*

### 6.323.1 Detailed Description

A container that holds a response object. Callers of the `getResponse` method will block until a response has been receive unless they call the `getRepsonse` that takes a timeout.

### 6.323.2 Constructor & Destructor Documentation

**6.323.2.1** `activemq::transport::correlator::FutureResponse::FutureResponse ()`  
[inline]

**6.323.2.2** `virtual`  
`activemq::transport::correlator::FutureResponse::~~FutureResponse ()`  
[inline, virtual]

### 6.323.3 Member Function Documentation

**6.323.3.1** `virtual Pointer<Response>& activemq::transport::correlator::FutureResponse::getResponse (unsigned int timeout)` [inline, virtual]

**6.323.3.2** `virtual const Pointer<Response>& activemq::transport::correlator::FutureResponse::getResponse (unsigned int timeout) const` [inline, virtual]

Getters for the response property. Timed Wait.

**Parameters:**

*timeout* - time to wait in milliseconds

**Returns:**

the response object for the request

**6.323.3.3** `virtual Pointer<Response>& activemq::transport::correlator::FutureResponse::getResponse () [inline, virtual]`

**6.323.3.4** `virtual const Pointer<Response>& activemq::transport::correlator::FutureResponse::getResponse () const [inline, virtual]`

Getters for the response property. Infinite Wait.

**Returns:**

the response object for the request

**6.323.3.5** `virtual void activemq::transport::correlator::FutureResponse::setResponse (const Pointer< Response > & response) [inline, virtual]`

Setter for the response property.

**Parameters:**

*response* the response object for the request.

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/correlator/FutureResponse.h`

## 6.324 decaf::security::GeneralSecurityException Class Reference

#include <src/main/decaf/security/GeneralSecurityException.h> Inheritance diagram for decaf::security::GeneralSecurityException:

### Public Member Functions

- **GeneralSecurityException** () throw ()  
*Default Constructor.*
- **GeneralSecurityException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **GeneralSecurityException** (const **GeneralSecurityException** &ex) throw ()  
*Copy Constructor.*
- **GeneralSecurityException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **GeneralSecurityException** (const std::exception \*cause) throw ()  
*Constructor.*
- **GeneralSecurityException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **GeneralSecurityException** \* clone () const  
*Clones this exception.*
- virtual ~**GeneralSecurityException** () throw ()

### 6.324.1 Constructor & Destructor Documentation

#### 6.324.1.1 decaf::security::GeneralSecurityException::GeneralSecurityException () throw () [inline]

Default Constructor.

#### 6.324.1.2 decaf::security::GeneralSecurityException::GeneralSecurityException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.324.1.3 decaf::security::GeneralSecurityException::GeneralSecurityException (const GeneralSecurityException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.324.1.4 decaf::security::GeneralSecurityException::GeneralSecurityException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.324.1.5 decaf::security::GeneralSecurityException::GeneralSecurityException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.324.1.6 decaf::security::GeneralSecurityException::GeneralSecurityException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.324.1.7** `virtual`  
`decaf::security::GeneralSecurityException::~~GeneralSecurityException ()`  
`throw ()` [`inline`, `virtual`]

## 6.324.2 Member Function Documentation

**6.324.2.1** `virtual GeneralSecurityException* de-`  
`caf::security::GeneralSecurityException::clone () const`  
`[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

A deep copy of this exception.

Reimplemented in `decaf::security::cert::CertificateEncodingException`  
 (p. 973), `decaf::security::cert::CertificateException` (p. 975), `de-`  
`caf::security::cert::CertificateExpiredException` (p. 977), `de-`  
`caf::security::cert::CertificateNotYetValidException` (p. 979), `de-`  
`caf::security::cert::CertificateParsingException` (p. 981), `de-`  
`caf::security::InvalidKeyException` (p. 1812), `decaf::security::KeyException`  
 (p. 1957), `decaf::security::NoSuchAlgorithmException` (p. 2422),  
`decaf::security::NoSuchProviderException` (p. 2428), and `de-`  
`caf::security::SignatureException` (p. 2959).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/GeneralSecurityException.h`



## 6.325 decaf::util::logging::Handler Class Reference

A **Handler** (p.1709) object takes log messages from a **Logger** (p.2028) and exports them.

#include <src/main/decaf/util/logging/Handler.h>Inheritance diagram for decaf::util::logging::Handler:

### Public Member Functions

- virtual **~Handler** ()
- virtual void **flush** ()=0  
*Flush the Handler's output, clears any buffers.*
- virtual void **publish** (const **LogRecord** &record)=0  
*Publish the Log Record to this **Handler** (p.1709).*
- virtual void **isLoggable** (const **LogRecord** &record)=0  
*Check if this **Handler** (p.1709) would actually log a given **LogRecord** (p.2050).*
- virtual void **setFilter** (const **Filter** \*filter)=0  
*Sets the **Filter** (p.1630) that this **Handler** (p.1709) uses to filter Log Records.*
- virtual const **Filter** \* **getFilter** ()=0  
*Gets the **Filter** (p.1630) that this **Handler** (p.1709) uses to filter Log Records.*
- virtual void **setLevel** (**Level** value)=0  
***Set** (p.2905) the log level specifying which message levels will be logged by this **Handler** (p.1709).*
- virtual **Level** **getLevel** ()=0  
*Get the log level specifying which message levels will be logged by this **Handler** (p.1709).*
- virtual void **setFormatter** (const **Formatter** \*formatter)=0  
*Sets the **Formatter** (p.1699) used by this **Handler** (p.1709).*
- virtual const **Formatter** \* **getFormatter** ()=0  
*Gets the **Formatter** (p.1699) used by this **Handler** (p.1709).*

### 6.325.1 Detailed Description

A **Handler** (p.1709) object takes log messages from a **Logger** (p.2028) and exports them. It might for example, write them to a console or write them to a file, or send them to a network logging service, or forward them to an OS log, or whatever.

A **Handler** (p.1709) can be disabled by doing a **setLevel**(**Level**.OFF) and can be re-enabled by doing a **setLevel** with an appropriate level.

**Handler** (p.1709) classes typically use **LogManager** (p.2045) properties to set default values for the Handler's **Filter** (p.1630), **Formatter** (p.1699), and **Level**. See the specific documentation for each concrete **Handler** (p.1709) class.

## 6.325.2 Constructor & Destructor Documentation

**6.325.2.1** `virtual decaf::util::logging::Handler::~~Handler ()` [inline, virtual]

## 6.325.3 Member Function Documentation

**6.325.3.1** `virtual void decaf::util::logging::Handler::flush ()` [pure virtual]

Flush the Handler's output, clears any buffers.

Implemented in `decaf::util::logging::StreamHandler` (p. 3078).

**6.325.3.2** `virtual const Filter* decaf::util::logging::Handler::getFilter ()` [pure virtual]

Gets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records.

### Returns:

`Filter` (p. 1630) derived instance

Implemented in `decaf::util::logging::StreamHandler` (p. 3078).

**6.325.3.3** `virtual const Formatter* decaf::util::logging::Handler::getFormatter ()` [pure virtual]

Gets the `Formatter` (p. 1699) used by this **Handler** (p. 1709).

### Returns:

`Filter` (p. 1630) derived instance

Implemented in `decaf::util::logging::StreamHandler` (p. 3079).

**6.325.3.4** `virtual Level decaf::util::logging::Handler::getLevel ()` [pure virtual]

Get the log level specifying which message levels will be logged by this **Handler** (p. 1709).

### Returns:

Level enumeration value

Implemented in `decaf::util::logging::StreamHandler` (p. 3079).

**6.325.3.5** `virtual void decaf::util::logging::Handler::isLoggable (const LogRecord & record)` [pure virtual]

Check if this **Handler** (p. 1709) would actually log a given **LogRecord** (p. 2050). This method checks if the **LogRecord** (p. 2050) has an appropriate Level and whether it satisfies any **Filter** (p. 1630). It also may make other **Handler** (p. 1709) specific checks that might prevent a handler from logging the **LogRecord** (p. 2050).

**Parameters:**

*record* LogRecord (p. 2050) to check

Implemented in **decaf::util::logging::StreamHandler** (p. 3079).

**6.325.3.6 virtual void decaf::util::logging::Handler::publish (const LogRecord & *record*) [pure virtual]**

Publish the Log Record to this **Handler** (p. 1709).

**Parameters:**

*record* The Log Record to Publish

Implemented in **decaf::util::logging::StreamHandler** (p. 3079).

**6.325.3.7 virtual void decaf::util::logging::Handler::setFilter (const Filter \* *filter*) [pure virtual]**

Sets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records. For each call of publish the **Handler** (p. 1709) will call this **Filter** (p. 1630) (if it is non-null) to check if the **LogRecord** (p. 2050) should be published or discarded.

**Parameters:**

*filter* Filter (p. 1630) derived instance

Implemented in **decaf::util::logging::StreamHandler** (p. 3080).

**6.325.3.8 virtual void decaf::util::logging::Handler::setFormatter (const Formatter \* *formatter*) [pure virtual]**

Sets the **Formatter** (p. 1699) used by this **Handler** (p. 1709). Some Handlers may not use Formatters, in which case the **Formatter** (p. 1699) will be remembered, but not used.

**Parameters:**

*formatter* Filter (p. 1630) derived instance

Implemented in **decaf::util::logging::StreamHandler** (p. 3080).

**6.325.3.9 virtual void decaf::util::logging::Handler::setLevel (Level *value*) [pure virtual]**

**Set** (p. 2905) the log level specifying which message levels will be logged by this **Handler** (p. 1709). The intention is to allow developers to turn on voluminous logging, but to limit the messages that are sent to certain Handlers.

**Parameters:**

*value* Level enumeration value

Implemented in **decaf::util::logging::StreamHandler** (p. 3080).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/Handler.h`

## 6.326 decaf::internal::util::HexStringParser Class Reference

```
#include <src/main/decaf/internal/util/HexStringParser.h>
```

### Public Member Functions

- **HexStringParser** (int exponentWidth, int mantissaWidth)  
*Create a new HexParser.*
- virtual **~HexStringParser** ()
- long long **parse** (const std::string &hexString)  
*Parses a hex string using the specs given in the constructor and returns a long long with the bits of the parsed string, the caller can then convert those to a float or double as needed.*

### Static Public Member Functions

- static double **parseDouble** (const std::string &hexString)
- static float **parseFloat** (const std::string &hexString)

#### 6.326.1 Constructor & Destructor Documentation

##### 6.326.1.1 decaf::internal::util::HexStringParser::HexStringParser (int exponentWidth, int mantissaWidth)

Create a new HexParser.

##### Parameters:

*exponentWidth* - Width of the exponent for the type to parse  
*mantissaWidth* - Width of the mantissa for the type to parse

##### 6.326.1.2 virtual decaf::internal::util::HexStringParser::~~HexStringParser () [inline, virtual]

#### 6.326.2 Member Function Documentation

##### 6.326.2.1 long long decaf::internal::util::HexStringParser::parse (const std::string &hexString)

Parses a hex string using the specs given in the constructor and returns a long long with the bits of the parsed string, the caller can then convert those to a float or double as needed.

##### Parameters:

*hexString* - string to parse

##### Returns:

the bits parsed from the string

**6.326.2.2** static double decaf::internal::util::HexStringParser::parseDouble (const std::string & *hexString*) [static]

**6.326.2.3** static float decaf::internal::util::HexStringParser::parseFloat (const std::string & *hexString*) [static]

The documentation for this class was generated from the following file:

- src/main/decaf/internal/util/**HexStringParser.h**

## 6.327 activemq::wireformat::openwire::utils::HexTable Class Reference

The **HexTable** (p.1715) class maps hexadecimal strings to the value of an index into the table, i.e.

```
#include <src/main/activemq/wireformat/openwire/utils/HexTable.h>
```

### Public Member Functions

- **HexTable** ()
- virtual **~HexTable** ()
- virtual const std::string & **operator[]** (std::size\_t index) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Index operator for this Table, will throw an exception if the index requested is out of bounds for this table.*

- virtual const std::string & **operator[]** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )
- virtual std::size\_t **size** () const

*Returns the max size of this Table.*

### 6.327.1 Detailed Description

The **HexTable** (p.1715) class maps hexadecimal strings to the value of an index into the table, i.e. the class will return "FF" for the index 255 in the table.

### 6.327.2 Constructor & Destructor Documentation

**6.327.2.1** activemq::wireformat::openwire::utils::HexTable::HexTable ()

**6.327.2.2** virtual activemq::wireformat::openwire::utils::HexTable::~~HexTable ()  
[inline, virtual]

### 6.327.3 Member Function Documentation

**6.327.3.1** virtual const std::string&  
activemq::wireformat::openwire::utils::HexTable::operator[] (std::size\_t  
*index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException  
) [virtual]

**6.327.3.2** virtual const std::string&  
activemq::wireformat::openwire::utils::HexTable::operator[] (std::size\_t  
*index*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
[virtual]

Index operator for this Table, will throw an exception if the index requested is out of bounds for this table.

**Parameters:**

*index* The index of the value in the table to fetch.

**Returns:**

string containing the hex value if the index

**Exceptions:**

*IndexOutOfBoundsException*

**6.327.3.3** `virtual std::size_t activemq::wireformat::openwire::utils::HexTable::size  
() const [inline, virtual]`

Returns the max size of this Table.

**Returns:**

an integer size value

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/utils/HexTable.h`



## 6.328 decaf::net::HttpRetryException Class Reference

#include <src/main/decaf/net/HttpRetryException.h> Inheritance diagram for decaf::net::HttpRetryException:

### Public Member Functions

- **HttpRetryException** () throw ()  
*Default Constructor.*
- **HttpRetryException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **HttpRetryException** (const **HttpRetryException** &ex) throw ()  
*Copy Constructor.*
- **HttpRetryException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **HttpRetryException** (const std::exception \*cause) throw ()  
*Constructor.*
- **HttpRetryException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **HttpRetryException** \* **clone** () const  
*Clones this exception.*
- virtual ~**HttpRetryException** () throw ()

### 6.328.1 Constructor & Destructor Documentation

#### 6.328.1.1 decaf::net::HttpRetryException::HttpRetryException () throw () [inline]

Default Constructor.

#### 6.328.1.2 decaf::net::HttpRetryException::HttpRetryException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

**ex** An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

### 6.328.1.3 decaf::net::HttpRetryException::HttpRetryException (const HttpRetryException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

### 6.328.1.4 decaf::net::HttpRetryException::HttpRetryException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.328.1.5 decaf::net::HttpRetryException::HttpRetryException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.328.1.6 decaf::net::HttpRetryException::HttpRetryException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.328.1.7** virtual decaf::net::HttpRetryException::~~HttpRetryException () throw  
() [inline, virtual]

## 6.328.2 Member Function Documentation

**6.328.2.1** virtual HttpRetryException\* decaf::net::HttpRetryException::clone ()  
const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- src/main/decaf/net/**HttpRetryException.h**

## 6.329 decaf::lang::exceptions::IllegalArgumentException Class Reference

#include <src/main/decaf/lang/exceptions/IllegalArgumentException.h> Inheritance diagram for decaf::lang::exceptions::IllegalArgumentException:

### Public Member Functions

- **IllegalArgumentException** () throw ()  
*Default Constructor.*
- **IllegalArgumentException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **IllegalArgumentException** (const **IllegalArgumentException** &ex) throw ()  
*Copy Constructor.*
- **IllegalArgumentException** (const std::exception \*cause) throw ()  
*Constructor.*
- **IllegalArgumentException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalArgumentException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **IllegalArgumentException** \* clone () const  
*Clones this exception.*
- virtual ~**IllegalArgumentException** () throw ()

### 6.329.1 Constructor & Destructor Documentation

#### 6.329.1.1 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException () throw () [inline]

Default Constructor.

#### 6.329.1.2 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.329.1.3 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException (const IllegalArgumentException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.329.1.4 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.329.1.5 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.329.1.6 decaf::lang::exceptions::IllegalArgumentException::IllegalArgumentException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.329.1.7**    **virtual**  
          **decaf::lang::exceptions::IllegalArgumentException::~~IllegalArgumentException**  
          **() throw ()**    [inline, virtual]

## **6.329.2**    **Member Function Documentation**

**6.329.2.1**    **virtual IllegalArgumentException\* de-**  
          **caf::lang::exceptions::IllegalArgumentException::clone ()**  
          **const**    [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/IllegalArgumentException.h`

## 6.330 decaf::lang::exceptions::IllegalMonitorStateException Class Reference

#include <src/main/decaf/lang/exceptions/IllegalMonitorStateException.h> Inheritance diagram for decaf::lang::exceptions::IllegalMonitorStateException:

### Public Member Functions

- **IllegalMonitorStateException** () throw ()  
*Default Constructor.*
- **IllegalMonitorStateException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **IllegalMonitorStateException** (const **IllegalMonitorStateException** &ex) throw ()  
*Copy Constructor.*
- **IllegalMonitorStateException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalMonitorStateException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalMonitorStateException** (const std::exception \*cause) throw ()  
*Constructor.*
- virtual **IllegalMonitorStateException** \* clone () const  
*Clones this exception.*
- virtual ~**IllegalMonitorStateException** () throw ()

### 6.330.1 Constructor & Destructor Documentation

#### 6.330.1.1 decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException () throw () [inline]

Default Constructor.

#### 6.330.1.2 decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.330.1.3 `decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException (const IllegalMonitorStateException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.330.1.4 `decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.330.1.5 `decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.330.1.6 `decaf::lang::exceptions::IllegalMonitorStateException::IllegalMonitorStateException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.



**6.330.1.7** virtual  
decaf::lang::exceptions::IllegalMonitorStateException::~~IllegalMonitorStateException  
( ) throw ( ) [inline, virtual]

## 6.330.2 Member Function Documentation

**6.330.2.1** virtual IllegalMonitorStateException\* de-  
cafe::lang::exceptions::IllegalMonitorStateException::clone  
( ) const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**IllegalMonitorStateException.h**

## 6.331 decaf::lang::exceptions::IllegalStateException Class Reference

#include <src/main/decaf/lang/exceptions/IllegalStateException.h> Inheritance diagram for decaf::lang::exceptions::IllegalStateException:

### Public Member Functions

- **IllegalStateException** () throw ()  
*Default Constructor.*
- **IllegalStateException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **IllegalStateException** (const **IllegalStateException** &ex) throw ()  
*Copy Constructor.*
- **IllegalStateException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalStateException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalStateException** (const std::exception \*cause) throw ()  
*Constructor.*
- virtual **IllegalStateException** \* clone () const  
*Clones this exception.*
- virtual ~**IllegalStateException** () throw ()

### 6.331.1 Constructor & Destructor Documentation

#### 6.331.1.1 decaf::lang::exceptions::IllegalStateException::IllegalStateException () throw () [inline]

Default Constructor.

#### 6.331.1.2 decaf::lang::exceptions::IllegalStateException::IllegalStateException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.331.1.3 decaf::lang::exceptions::IllegalStateException::IllegalStateException**  
(const IllegalStateException & *ex*) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.331.1.4 decaf::lang::exceptions::IllegalStateException::IllegalStateException**  
(const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.331.1.5 decaf::lang::exceptions::IllegalStateException::IllegalStateException**  
(const char \* *file*, const int *lineNumber*, const std::exception \* *cause*,  
const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.331.1.6 decaf::lang::exceptions::IllegalStateException::IllegalStateException**  
(const std::exception \* *cause*) throw () [inline]

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.331.1.7**   **virtual**  
**decaf::lang::exceptions::IllegalStateException::~~IllegalStateException ()**  
**throw ()**   [inline, virtual]

## **6.331.2   Member Function Documentation**

**6.331.2.1**   **virtual** **IllegalStateException\*** **de-**  
**caf::lang::exceptions::IllegalStateException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

Reimplemented in **decaf::nio::InvalidMarkException** (p. 1815).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/IllegalStateException.h`

## 6.332 cms::IllegalStateException Class Reference

This exception is thrown when a method is invoked at an illegal or inappropriate time or if the provider is not in an appropriate state for the requested operation.

#include <src/main/cms/IllegalStateException.h> Inheritance diagram for cms::IllegalStateException:

### Public Member Functions

- **IllegalStateException** () throw ()
- **IllegalStateException** (const **IllegalStateException** &ex) throw ()
- **IllegalStateException** (const std::string &message, const std::exception \*cause) throw ()
- **IllegalStateException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**IllegalStateException** () throw ()

### 6.332.1 Detailed Description

This exception is thrown when a method is invoked at an illegal or inappropriate time or if the provider is not in an appropriate state for the requested operation. For example, this exception must be thrown if **Session.commit** (p. 2843) is called on a non-transacted session.

Since:

1.3

### 6.332.2 Constructor & Destructor Documentation

**6.332.2.1** cms::IllegalStateException::IllegalStateException () throw ()

**6.332.2.2** cms::IllegalStateException::IllegalStateException (const **IllegalStateException** & *ex*) throw ()

**6.332.2.3** cms::IllegalStateException::IllegalStateException (const std::string & *message*, const std::exception \* *cause*) throw ()

**6.332.2.4** cms::IllegalStateException::IllegalStateException (const std::string & *message*, const std::exception \* *cause*, const std::vector< std::pair< std::string, int > > & *stackTrace*) throw ()

**6.332.2.5** virtual cms::IllegalStateException::~~IllegalStateException () throw ()  
[virtual]

The documentation for this class was generated from the following file:

- src/main/cms/**IllegalStateException.h**

## 6.333 decaf::lang::exceptions::IllegalThreadStateException Class Reference

#include <src/main/decaf/lang/exceptions/IllegalThreadStateException.h> Inheritance diagram for decaf::lang::exceptions::IllegalThreadStateException:

### Public Member Functions

- **IllegalThreadStateException** () throw ()  
*Default Constructor.*
- **IllegalThreadStateException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **IllegalThreadStateException** (const **IllegalThreadStateException** &ex) throw ()  
*Copy Constructor.*
- **IllegalThreadStateException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalThreadStateException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IllegalThreadStateException** (const std::exception \*cause) throw ()  
*Constructor.*
- virtual **IllegalThreadStateException** \* clone () const  
*Clones this exception.*
- virtual ~**IllegalThreadStateException** () throw ()

### 6.333.1 Constructor & Destructor Documentation

#### 6.333.1.1 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException () throw () [inline]

Default Constructor.

#### 6.333.1.2 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.333.1.3 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException (const IllegalThreadStateException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.333.1.4 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.333.1.5 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.333.1.6 decaf::lang::exceptions::IllegalThreadStateException::IllegalThreadStateException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.333.1.7**    **virtual**  
          **decaf::lang::exceptions::IllegalThreadStateException::~~IllegalThreadStateException**  
          **() throw ()**    [inline, virtual]

## **6.333.2**    **Member Function Documentation**

**6.333.2.1**    **virtual IllegalThreadStateException\* de-**  
          **caf::lang::exceptions::IllegalThreadStateException::clone ()**  
          **const**    [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p.1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p.1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/IllegalThreadStateException.h`



## 6.334 activemq::transport::inactivity::InactivityMonitor Class Reference

#include <src/main/activemq/transport/inactivity/InactivityMonitor.h> Inheritance diagram for activemq::transport::inactivity::InactivityMonitor:

### Public Member Functions

- **InactivityMonitor** (const **Pointer**< **Transport** > &next, const **Pointer**< **wireformat::WireFormat** > &wireFormat)
- **InactivityMonitor** (const **Pointer**< **Transport** > &next, const **decaf::util::Properties** &properties, const **Pointer**< **wireformat::WireFormat** > &wireFormat)
- virtual ~**InactivityMonitor** ()
- virtual void **close** () throw ( **decaf::io::IOException** )  
*Stops the polling thread and closes the streams.*
- virtual void **onException** (const **decaf::lang::Exception** &ex)  
*Event handler for an exception from a command transport.*
- virtual void **onCommand** (const **Pointer**< **Command** > &command)  
*Event handler for the receipt of a command.*
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( **decaf::io::IOException**, **decaf::lang::exceptions::UnsupportedOperationException** )  
*Sends a one-way command.*
- bool **isKeepAliveResponseRequired** () const
- void **setKeepAliveResponseRequired** (bool value)
- long long **getReadCheckTime** () const
- void **setReadCheckTime** (long long value)
- long long **getWriteCheckTime** () const
- void **setWriteCheckTime** (long long value)
- long long **getInitialDelayTime** () const
- void **setInitialDelayTime** (long long value) const

### Friends

- class **ReadChecker**
- class **AsyncSignalReadErrorTask**
- class **WriteChecker**
- class **AsyncWriteTask**

### 6.334.1 Constructor & Destructor Documentation

- 6.334.1.1 `activemq::transport::inactivity::InactivityMonitor::InactivityMonitor (const Pointer< Transport > & next, const Pointer< wireformat::WireFormat > & wireFormat)`
- 6.334.1.2 `activemq::transport::inactivity::InactivityMonitor::InactivityMonitor (const Pointer< Transport > & next, const decaf::util::Properties & properties, const Pointer< wireformat::WireFormat > & wireFormat)`
- 6.334.1.3 `virtual  
activemq::transport::inactivity::InactivityMonitor::~~InactivityMonitor ()  
[virtual]`

### 6.334.2 Member Function Documentation

- 6.334.2.1 `virtual void activemq::transport::inactivity::InactivityMonitor::close ()  
throw ( decaf::io::IOException ) [virtual]`

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

#### Exceptions:

*IOException* if an error occurs while closing the **Transport** (p. 3273).

Reimplemented from **activemq::transport::TransportFilter** (p. 3283).

- 6.334.2.2 `long long ac-  
tivemq::transport::inactivity::InactivityMonitor::getInitialDelayTime ()  
const`
- 6.334.2.3 `long long ac-  
tivemq::transport::inactivity::InactivityMonitor::getReadCheckTime ()  
const`
- 6.334.2.4 `long long ac-  
tivemq::transport::inactivity::InactivityMonitor::getWriteCheckTime ()  
const`
- 6.334.2.5 `bool ac-  
tivemq::transport::inactivity::InactivityMonitor::isKeepAliveResponseRequired  
( ) const`
- 6.334.2.6 `virtual void ac-  
tivemq::transport::inactivity::InactivityMonitor::onCommand (const  
Pointer< Command > & command) [virtual]`

Event handler for the receipt of a command.

#### Parameters:

*command* - the received command object.

Reimplemented from `activemq::transport::TransportFilter` (p. 3285).

**6.334.2.7** `virtual void activemq::transport::inactivity::InactivityMonitor::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends a one-way command. Does not wait for any response from the broker.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Reimplemented from `activemq::transport::TransportFilter` (p. 3285).

**6.334.2.8** `virtual void activemq::transport::inactivity::InactivityMonitor::onException (const decaf::lang::Exception & ex) [virtual]`

Event handler for an exception from a command transport.

**Parameters:**

*ex* The exception to handle.

Reimplemented from `activemq::transport::TransportFilter` (p. 3286).

- 6.334.2.9    `void activemq::transport::inactivity::InactivityMonitor::setInitialDelayTime`  
                  (`long long value`) `const`
- 6.334.2.10   `void activemq::transport::inactivity::InactivityMonitor::setKeepAliveResponseRequired`  
                  (`bool value`)
- 6.334.2.11   `void activemq::transport::inactivity::InactivityMonitor::setReadCheckTime`  
                  (`long long value`)
- 6.334.2.12   `void activemq::transport::inactivity::InactivityMonitor::setWriteCheckTime`  
                  (`long long value`)

### 6.334.3 Friends And Related Function Documentation

- 6.334.3.1   `friend class AsyncSignalReadErrorTask`   `[friend]`
- 6.334.3.2   `friend class AsyncWriteTask`   `[friend]`
- 6.334.3.3   `friend class ReadChecker`   `[friend]`
- 6.334.3.4   `friend class WriteChecker`   `[friend]`

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/inactivity/InactivityMonitor.h`

## 6.335 decaf::lang::exceptions::IndexOutOfBoundsException Class Reference

#include <src/main/decaf/lang/exceptions/IndexOutOfBoundsException.h>Inheritance diagram for decaf::lang::exceptions::IndexOutOfBoundsException:

### Public Member Functions

- **IndexOutOfBoundsException** () throw ()  
*Default Constructor.*
- **IndexOutOfBoundsException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **IndexOutOfBoundsException** (const **IndexOutOfBoundsException** &ex) throw ()  
*Copy Constructor.*
- **IndexOutOfBoundsException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IndexOutOfBoundsException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IndexOutOfBoundsException** (const std::exception \*cause) throw ()  
*Constructor.*
- virtual **IndexOutOfBoundsException** \* clone () const  
*Clones this exception.*
- virtual ~**IndexOutOfBoundsException** () throw ()

### 6.335.1 Constructor & Destructor Documentation

#### 6.335.1.1 decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException () throw () [inline]

Default Constructor.

#### 6.335.1.2 decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.335.1.3 `decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException (const IndexOutOfBoundsException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.335.1.4 `decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.335.1.5 `decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.335.1.6 `decaf::lang::exceptions::IndexOutOfBoundsException::IndexOutOfBoundsException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.335.1.7** virtual  
decaf::lang::exceptions::IndexOutOfBoundsException::~IndexOutOfBoundsException  
( ) throw () [inline, virtual]

## 6.335.2 Member Function Documentation

**6.335.2.1** virtual IndexOutOfBoundsException\* decaf::lang::exceptions::IndexOutOfBoundsException::clone  
( ) const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**IndexOutOfBoundsException.h**

## 6.336 decaf::io::InputStream Class Reference

Base interface for an input stream.

```
#include <src/main/decaf/io/InputStream.h>
Inheritance diagram for decaf::io::InputStream:
```

### Public Member Functions

- virtual **~InputStream** ()
- virtual void **mark** (int readLimit)=0
 

*Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** ()=0 throw ( IOException )
 

*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const =0
 

*Determines if this input stream supports the mark and reset methods.*
- virtual std::size\_t **available** () const =0 throw ( IOException )
 

*Indicates the number of bytes available.*
- virtual int **read** ()=0 throw ( IOException )
 

*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize)=0 throw ( IOException, lang::exceptions::NullPointerException )
 

*Reads an array of bytes from the buffer.*
- virtual std::size\_t **skip** (std::size\_t num)=0 throw ( io::IOException, lang::exceptions::UnsupportedOperationException )
 

*Skips over and discards n bytes of data from this input stream.*

### 6.336.1 Detailed Description

Base interface for an input stream.



## 6.336.2 Constructor & Destructor Documentation

**6.336.2.1** virtual decaf::io::InputStream::~~InputStream () [inline, virtual]

## 6.336.3 Member Function Documentation

**6.336.3.1** virtual std::size\_t decaf::io::InputStream::available () const throw (IOException) [pure virtual]

Indicates the number of bytes available.

### Returns:

the number of bytes available on this input stream.

### Exceptions:

*IOException* (p. 1820) if an error occurs.

Implemented in decaf::internal::io::StandardInputStream (p. 3001), decaf::io::BlockingByteArrayInputStream (p. 726), decaf::io::BufferedInputStream (p. 810), decaf::io::ByteArrayInputStream (p. 894), decaf::io::FilterInputStream (p. 1633), and decaf::net::SocketInputStream (p. 2979).

**6.336.3.2** virtual void decaf::io::InputStream::mark (int *readLimit*) [pure virtual]

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

### Parameters:

*readLimit* - max bytes read before marked position is invalid.

Implemented in decaf::internal::io::StandardInputStream (p. 3002), decaf::io::BlockingByteArrayInputStream (p. 727), decaf::io::BufferedInputStream (p. 811), decaf::io::ByteArrayInputStream (p. 895), decaf::io::FilterInputStream (p. 1634), and decaf::net::SocketInputStream (p. 2979).

**6.336.3.3** virtual bool decaf::io::InputStream::markSupported () const [pure virtual]

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

### Returns:

true if this stream instance supports marks

Implemented in decaf::internal::io::StandardInputStream (p. 3002), decaf::io::BlockingByteArrayInputStream (p. 727), decaf::io::BufferedInputStream (p. 811), decaf::io::ByteArrayInputStream (p. 895), decaf::io::FilterInputStream (p. 1634), and decaf::net::SocketInputStream (p. 2979).

**6.336.3.4** `virtual int decaf::io::InputStream::read (unsigned char * buffer,  
std::size_t offset, std::size_t bufferSize) throw ( IOException,  
lang::exceptions::NullPointerException ) [pure virtual]`

Reads an array of bytes from the buffer. Blocks until the requested number of bytes are available.

**Parameters:**

*buffer* (out) the target buffer.

*offset* the position in the buffer to start reading from.

*bufferSize* the size of the output buffer.

**Returns:**

The number of bytes read or -1 if EOF is detected

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* if buffer is null

Implemented in `activemq::io::LoggingInputStream` (p. 2038), `decaf::internal::io::StandardInputStream` (p. 3003), `decaf::io::BlockingByteArrayInputStream` (p. 728), `decaf::io::BufferedInputStream` (p. 811), `decaf::io::ByteArrayInputStream` (p. 896), `decaf::io::DataInputStream` (p. 1381), `decaf::io::FilterInputStream` (p. 1635), and `decaf::net::SocketInputStream` (p. 2980).

**6.336.3.5** `virtual int decaf::io::InputStream::read () throw ( IOException ) [pure virtual]`

Reads a single byte from the buffer. The value byte is returned as an int in the range 0 to 255. If no byte is available because the end of the stream has been reached, the value -1 is returned. This method blocks until input data is available, the end of the stream is detected, or an exception is thrown.

**Returns:**

The next byte or -1 if the end of stream is reached.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implemented in `activemq::io::LoggingInputStream` (p. 2039), `decaf::internal::io::StandardInputStream` (p. 3004), `decaf::io::BlockingByteArrayInputStream` (p. 728), `decaf::io::BufferedInputStream` (p. 812), `decaf::io::ByteArrayInputStream` (p. 896), `decaf::io::DataInputStream` (p. 1382), `decaf::io::FilterInputStream` (p. 1636), and `decaf::net::SocketInputStream` (p. 2981).

**6.336.3.6** `virtual void decaf::io::InputStream::reset () throw ( IOException ) [pure virtual]`

Repositions this stream to the position at the time the mark method was last called on this input stream. If the method markSupported returns true, then: \* If the method mark has not been

called since the stream was created, or the number of bytes read from the stream since mark was last called is larger than the argument to mark at that last call, then an **IOException** (p. 1820) might be thrown. \* If such an **IOException** (p. 1820) is not thrown, then the stream is reset to a state such that all the bytes read since the most recent call to mark (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the read method, followed by any bytes that otherwise would have been the next input data as of the time of the call to reset. If the method markSupported returns false, then: \* The call to reset may throw an **IOException** (p. 1820). \* If an **IOException** (p. 1820) is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the read method depend on the particular type of the input stream.

#### Exceptions:

*IOException* (p. 1820)

Implemented in **decaf::internal::io::StandardInputStream** (p. 3004), **decaf::io::BlockingByteArrayInputStream** (p. 728), **decaf::io::BufferedInputStream** (p. 812), **decaf::io::ByteArrayInputStream** (p. 897), **decaf::io::FilterInputStream** (p. 1636), and **decaf::net::SocketInputStream** (p. 2981).

#### 6.336.3.7 virtual std::size\_t decaf::io::InputStream::skip (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException ) [pure virtual]

Skips over and discards n bytes of data from this input stream. The skip method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from any of a number of conditions; reaching end of file before n bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If n is negative, no bytes are skipped.

The skip method of **InputStream** (p. 1740) creates a byte array and then repeatedly reads into it until n bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

#### Parameters:

*num* - the number of bytes to skip

#### Returns:

total bytes skipped

#### Exceptions:

*IOException* (p. 1820) if an error occurs

Implemented in **decaf::internal::io::StandardInputStream** (p. 3004), **decaf::io::BlockingByteArrayInputStream** (p. 729), **decaf::io::BufferedInputStream** (p. 812), **decaf::io::ByteArrayInputStream** (p. 897), **decaf::io::DataInputStream** (p. 1387), **decaf::io::FilterInputStream** (p. 1637), and **decaf::net::SocketInputStream** (p. 2981).

The documentation for this class was generated from the following file:

- src/main/decaf/io/**InputStream.h**

## 6.337 decaf::internal::nio::IntArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/IntArrayBuffer.h> Inheritance diagram for decaf::internal::nio::IntArrayBuffer:

### Public Member Functions

- **IntArrayBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **IntArrayBuffer** (p. 1744) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **IntArrayBuffer** (int \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **IntArrayBuffer** (p. 1744) object that wraps the given array.*
- **IntArrayBuffer** (ByteArrayPerspective &array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset.*
- **IntArrayBuffer** (const IntArrayBuffer &other)  
*Create a **IntArrayBuffer** (p. 1744) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~**IntArrayBuffer** ()
- virtual int \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the int array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual IntBuffer \* **asReadOnlyBuffer** () const  
*Creates a new, read-only int buffer that shares this buffer's content.*
- virtual IntBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual IntBuffer \* **duplicate** ()  
*Creates a new int buffer that shares this buffer's content.*
- virtual int **get** () throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*
- virtual int **get** (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )

*Absolute get method.*

- virtual bool **hasArray** () const  
*Tells whether or not this buffer is backed by an accessible int array.*
- virtual bool **isReadOnly** () const  
*Tells whether or not this buffer is read-only.*
- virtual IntBuffer & **put** (int value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the current position, and then increments the position.*
- virtual IntBuffer & **put** (std::size\_t index, int value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the given index.*
- virtual IntBuffer \* **slice** () const  
*Creates a new IntBuffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)  
*Sets this *ByteArrayBuffer* (p. 870) as Read-Only.*

### 6.337.1 Constructor & Destructor Documentation

#### 6.337.1.1 decaf::internal::nio::IntArrayBuffer::IntArrayBuffer (std::size\_t capacity, bool readOnly = false)

Creates a **IntArrayBuffer** (p. 1744) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size of the array, this is the limit we read and write to.  
*readOnly* - should this buffer be read-only, default as false

#### 6.337.1.2 decaf::internal::nio::IntArrayBuffer::IntArrayBuffer (int \* array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **IntArrayBuffer** (p. 1744) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

**6.337.1.3** `decaf::internal::nio::IntArrayBuffer::IntArrayBuffer (ByteArrayPerspective & array, std::size_t offset, std::size_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )`

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p.908) and start at the given offset. The capacity and limit of the new **IntArrayBuffer** (p.1744) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteArrayPerspective** (p.908) to wrap

*offset* - the offset into array where the buffer starts

*capacity* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

**6.337.1.4** `decaf::internal::nio::IntArrayBuffer::IntArrayBuffer (const IntArrayBuffer & other)`

Create a **IntArrayBuffer** (p.1744) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p.908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **IntArrayBuffer** (p.1744) this one is to mirror.

**6.337.1.5** `virtual decaf::internal::nio::IntArrayBuffer::~~IntArrayBuffer () [virtual]`

## 6.337.2 Member Function Documentation

**6.337.2.1** `virtual int* decaf::internal::nio::IntArrayBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the int array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this Buffer

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::IntBuffer** (p. 1753).

**6.337.2.2** `virtual std::size_t decaf::internal::nio::IntArrayBuffer::arrayOffset ()  
throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::IntBuffer** (p. 1754).

**6.337.2.3** `virtual IntBuffer* decaf::internal::nio::IntArrayBuffer::asReadOnlyBuffer  
( ) const [virtual]`

Creates a new, read-only int buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only int buffer which the caller then owns.

Implements **decaf::nio::IntBuffer** (p. 1754).

**6.337.2.4** `virtual IntBuffer& decaf::internal::nio::IntArrayBuffer::compact () throw  
( decaf::nio::ReadOnlyBufferException ) [virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p. 807) is copied

to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this `IntBuffer`

**Exceptions:**

***ReadOnlyBufferException*** - If this buffer is read-only

Implements `decaf::nio::IntBuffer` (p. 1754).

**6.337.2.5** `virtual IntBuffer* decaf::internal::nio::IntArrayBuffer::duplicate ()`  
[virtual]

Creates a new int buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new int Buffer which the caller owns.

Implements `decaf::nio::IntBuffer` (p. 1755).

**6.337.2.6** `virtual int decaf::internal::nio::IntArrayBuffer::get (std::size_t index)`  
`const throw ( lang::exceptions::IndexOutOfBoundsException )` [virtual]

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the Buffer where the int is to be read

**Returns:**

the int that is located at the given index

**Exceptions:**

***IndexOutOfBoundsException*** - If index is not smaller than the buffer's limit

Implements `decaf::nio::IntBuffer` (p. 1756).

**6.337.2.7** `virtual int decaf::internal::nio::IntArrayBuffer::get () throw (`  
`decaf::nio::BufferUnderflowException )` [virtual]

Relative get method. Reads the value at this buffer's current position, and then increments the position.



**Returns:**

the int at the current position

**Exceptions:**

*BufferUnderflowException* if there no more data to return

Implements **decaf::nio::IntBuffer** (p. 1757).

**6.337.2.8 virtual bool decaf::internal::nio::IntArrayBuffer::hasArray () const**  
[inline, virtual]

Tells whether or not this buffer is backed by an accessible int array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements **decaf::nio::IntBuffer** (p. 1757).

**6.337.2.9 virtual bool decaf::internal::nio::IntArrayBuffer::isReadOnly () const**  
[inline, virtual]

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements **decaf::nio::Buffer** (p. 806).

**6.337.2.10 virtual IntBuffer& decaf::internal::nio::IntArrayBuffer::put (std::size\_t index, int value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )** [virtual]

Writes the given doubles into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the doubles to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::IntBuffer** (p. 1758).

**6.337.2.11** `virtual IntBuffer& decaf::internal::nio::IntArrayBuffer::put (int value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* - If this buffer is read-only

Implements `decaf::nio::IntBuffer` (p. 1758).

**6.337.2.12** `virtual void decaf::internal::nio::IntArrayBuffer::setReadOnly (bool value) [inline, protected, virtual]`

Sets this `ByteBuffer` (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.337.2.13** `virtual IntBuffer* decaf::internal::nio::IntArrayBuffer::slice () const [virtual]`

Creates a new `IntBuffer` whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create `IntBuffer` which the caller owns.

Implements `decaf::nio::IntBuffer` (p. 1760).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/IntArrayBuffer.h`

## 6.338 decaf::nio::IntBuffer Class Reference

This class defines four categories of operations upon int buffers:.

#include <src/main/decaf/nio/IntBuffer.h>Inheritance diagram for decaf::nio::IntBuffer:

### Public Member Functions

- virtual **~IntBuffer** ()
- virtual std::string **toString** () const
- virtual int \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the int array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **IntBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only int buffer that shares this buffer's content.*
- virtual **IntBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **IntBuffer** \* **duplicate** ()=0  
*Creates a new int buffer that shares this buffer's content.*
- virtual int **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*
- virtual int **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **IntBuffer** & **get** (std::vector< int > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **IntBuffer** & **get** (int \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible int array.*
- **IntBuffer** & **put** (**IntBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the ints remaining in the given source buffer into this buffer.*

- **IntBuffer** & **put** (const int \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )  
*This method transfers ints into this buffer from the given source array.*
- **IntBuffer** & **put** (std::vector< int > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )  
*This method transfers the entire content of the given source ints array into this buffer.*
- virtual **IntBuffer** & **put** (int value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )  
*Writes the given ints into this buffer at the current position, and then increments the position.*
- virtual **IntBuffer** & **put** (std::size\_t index, int value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )  
*Writes the given ints into this buffer at the given index.*
- virtual **IntBuffer** \* **slice** () const =0  
*Creates a new **IntBuffer** (p. 1751) whose content is a shared subsequence of this buffer's content.*
- virtual int **compareTo** (const **IntBuffer** &value) const  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const **IntBuffer** &value) const
- virtual bool **operator==** (const **IntBuffer** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **IntBuffer** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **IntBuffer** \* **allocate** (std::size\_t capacity)  
*Allocates a new Double buffer.*
- static **IntBuffer** \* **wrap** (int \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )  
*Wraps the passed buffer with a new **IntBuffer** (p. 1751).*
- static **IntBuffer** \* **wrap** (std::vector< int > &buffer)  
*Wraps the passed STL int Vector in a **IntBuffer** (p. 1751).*

## Protected Member Functions

- **IntBuffer** (std::size\_t capacity)  
*Creates a **IntBuffer** (p. 1751) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.338.1 Detailed Description

This class defines four categories of operations upon int buffers: o Absolute and relative get and put methods that read and write single ints; o Relative bulk get methods that transfer contiguous sequences of ints from this buffer into an array; and o Relative bulk put methods that transfer contiguous sequences of ints from a int array or some other int buffer into this buffer o Methods for compacting, duplicating, and slicing a int buffer.

Double buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing int array into a buffer, or by creating a view of an existing byte buffer

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained.

### 6.338.2 Constructor & Destructor Documentation

#### 6.338.2.1 decaf::nio::IntBuffer::IntBuffer (std::size\_t *capacity*) [protected]

Creates a **IntBuffer** (p.1751) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size and limit of the **Buffer** (p.803) in doubles

#### 6.338.2.2 virtual decaf::nio::IntBuffer::~~IntBuffer () [inline, virtual]

### 6.338.3 Member Function Documentation

#### 6.338.3.1 static IntBuffer\* decaf::nio::IntBuffer::allocate (std::size\_t *capacity*) [static]

Allocates a new Double buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

##### Parameters:

*capacity* - The size of the Double buffer in ints

##### Returns:

the **IntBuffer** (p.1751) that was allocated, caller owns.

#### 6.338.3.2 virtual int\* decaf::nio::IntBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]

Returns the int array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the hasArray method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this **Buffer** (p. 803)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1746).

**6.338.3.3** `virtual std::size_t decaf::nio::IntBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1747).

**6.338.3.4** `virtual IntBuffer* decaf::nio::IntBuffer::asReadOnlyBuffer () const [pure virtual]`

Creates a new, read-only int buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only int buffer which the caller then owns.

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1747).

**6.338.3.5** `virtual IntBuffer& decaf::nio::IntBuffer::compact () throw ( ReadOnlyBufferException ) [pure virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p. 807) is copied

to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **IntBuffer** (p. 1751)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1747).

**6.338.3.6** `virtual int decaf::nio::IntBuffer::compareTo (const IntBuffer & value)  
const [virtual]`

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.338.3.7** `virtual IntBuffer* decaf::nio::IntBuffer::duplicate () [pure virtual]`

Creates a new int buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new int **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1748).

**6.338.3.8** `virtual bool decaf::nio::IntBuffer::equals (const IntBuffer & value) const  
[virtual]`

**Returns:**

true if this value is considered equal to the passed value.

### 6.338.3.9 `IntBuffer& decaf::nio::IntBuffer::get (int * buffer, std::size_t offset, std::size_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )`

Relative bulk get method. This method transfers ints from this buffer into the given destination array. If there are fewer ints remaining in the buffer than are required to satisfy the request, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies `length` ints from this buffer into the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by `length`.

#### Parameters:

*buffer* - pointer to an allocated buffer to fill  
*offset* - position in the buffer to start filling  
*length* - amount of data to put in the passed buffer

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than `length` ints remaining in this buffer  
**NullPointerException** if the passed buffer is null.

### 6.338.3.10 `IntBuffer& decaf::nio::IntBuffer::get (std::vector< int > buffer) throw ( BufferUnderflowException )`

Relative bulk get method. This method transfers values from this buffer into the given destination vector. An invocation of this method of the form `src.get(a)` behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call `buffer.resize( N )` before calling this get method.

#### Returns:

a reference to this **Buffer** (p. 803)

#### Exceptions:

**BufferUnderflowException** (p. 837) - If there are fewer than `length` ints remaining in this buffer

### 6.338.3.11 `virtual int decaf::nio::IntBuffer::get (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Absolute get method. Reads the value at the given index.

#### Parameters:

*index* - the index in the **Buffer** (p. 803) where the int is to be read



**Returns:**

the int that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1748).

**6.338.3.12 virtual int decaf::nio::IntBuffer::get () throw ( BufferUnderflowException ) [pure virtual]**

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the int at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1748).

**6.338.3.13 virtual bool decaf::nio::IntBuffer::hasArray () const [pure virtual]**

Tells whether or not this buffer is backed by an accessible int array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1749).

**6.338.3.14 virtual bool decaf::nio::IntBuffer::operator< (const IntBuffer & value) const [virtual]**

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.338.3.15** `virtual bool decaf::nio::IntBuffer::operator==(const IntBuffer & value) const` [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.338.3.16** `virtual IntBuffer& decaf::nio::IntBuffer::put (std::size_t index, int value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )` [pure virtual]

Writes the given ints into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the ints to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::IntArrayBuffer` (p. 1749).

**6.338.3.17** `virtual IntBuffer& decaf::nio::IntBuffer::put (int value) throw ( BufferOverflowException, ReadOnlyBufferException )` [pure virtual]

Writes the given ints into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the ints value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in `decaf::internal::nio::IntArrayBuffer` (p. 1750).

### 6.338.3.18 IntBuffer& decaf::nio::IntBuffer::put (std::vector< int > & *buffer*) throw ( BufferOverflowException, ReadOnlyBufferException )

This method transfers the entire content of the given source ints array into this buffer. This is the same as calling put( &buffer[0], 0, buffer.size())

#### Parameters:

*buffer* - The buffer whose contents are copied to this **IntBuffer** (p. 1751)

#### Returns:

a reference to this buffer

#### Exceptions:

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

### 6.338.3.19 IntBuffer& decaf::nio::IntBuffer::put (const int \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )

This method transfers ints into this buffer from the given source array. If there are more ints to be copied from the array than remain in this buffer, that is, if length > **remaining()** (p. 808), then no ints are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies length bytes from the given array into this buffer, starting at the given offset in the array and at the current position of this buffer. The position of this buffer is then incremented by length.

#### Parameters:

*buffer*- The array from which ints are to be read

*offset*- The offset within the array of the first int to be read;

*length* - The number of ints to be read from the given array

#### Returns:

a reference to this buffer

#### Exceptions:

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

**NullPointerException** if the passed buffer is null.

### 6.338.3.20 IntBuffer& decaf::nio::IntBuffer::put (IntBuffer & *src*) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )

This method transfers the ints remaining in the given source buffer into this buffer. If there are more ints remaining in the source buffer than in this buffer, that is, if src.remaining() >

**remaining()** (p. 808), then no ints are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `n = src.remaining()` ints from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by `n`.

**Parameters:**

*src* - the buffer to take ints from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer for the remaining ints in the source buffer

**IllegalArgumentException** - If the source buffer is this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

### 6.338.3.21 `virtual IntBuffer* decaf::nio::IntBuffer::slice () const` [pure virtual]

Creates a new **IntBuffer** (p. 1751) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **IntBuffer** (p. 1751) which the caller owns.

Implemented in **decaf::internal::nio::IntArrayBuffer** (p. 1750).

### 6.338.3.22 `virtual std::string decaf::nio::IntBuffer::toString () const` [virtual]

**Returns:**

a `std::string` describing this object

### 6.338.3.23 `static IntBuffer* decaf::nio::IntBuffer::wrap (std::vector< int > & buffer)` [static]

Wraps the passed STL int Vector in a **IntBuffer** (p. 1751). The new buffer will be backed by the given int array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new **IntBuffer** (p.1751) that is backed by *buffer*, caller owns.

**6.338.3.24** `static IntBuffer* decaf::nio::IntBuffer::wrap (int *  
array, std::size_t offset, std::size_t length) throw (  
lang::exceptions::NullPointerException ) [static]`

Wraps the passed buffer with a new **IntBuffer** (p.1751). The new buffer will be backed by the given int array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*array* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new **IntBuffer** (p.1751) that is backed by *buffer*, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/IntBuffer.h`

## 6.339 decaf::lang::Integer Class Reference

#include <src/main/decaf/lang/Integer.h> Inheritance diagram for decaf::lang::Integer:

### Public Member Functions

- **Integer** (int value)
- **Integer** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual ~**Integer** ()
- virtual int **compareTo** (const **Integer** &i) const  
*Compares this **Integer** (p. 1762) instance with another.*
- bool **equals** (const **Integer** &i) const
- virtual bool **operator==** (const **Integer** &i) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Integer** &i) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const int &i) const  
*Compares this **Integer** (p. 1762) instance with another.*
- bool **equals** (const int &i) const
- virtual bool **operator==** (const int &i) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const int &i) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*

## Static Public Member Functions

- static **Integer** **decode** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Decodes a String into a **Integer** (p. 1762).*
- static int **reverseBytes** (int value)  
*Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified int value.*
- static int **reverse** (int value)  
*Returns the value obtained by reversing the order of the bits in the two's complement binary representation of the specified int value.*
- static int **parseInt** (const std::string &s, int radix) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed int in the radix specified by the second argument.*
- static int **parseInt** (const std::string &s) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed decimal int.*
- static **Integer** **valueOf** (int value)  
*Returns a **Integer** (p. 1762) instance representing the specified int value.*
- static **Integer** **valueOf** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Returns a **Integer** (p. 1762) object holding the value given by the specified std::string.*
- static **Integer** **valueOf** (const std::string &value, int radix) throw ( exceptions::NumberFormatException )  
*Returns a **Integer** (p. 1762) object holding the value extracted from the specified std::string when parsed with the radix given by the second argument.*
- static int **bitCount** (int value)  
*Returns the number of one-bits in the two's complement binary representation of the specified int value.*
- static std::string **toString** (int value)  
*Converts the int to a String representation.*
- static std::string **toString** (int value, int radix)  
*Returns a string representation of the first argument in the radix specified by the second argument.*
- static std::string **toHexString** (int value)  
*Returns a string representation of the integer argument as an unsigned integer in base 16.*
- static std::string **toOctalString** (int value)  
*Returns a string representation of the integer argument as an unsigned integer in base 8.*
- static std::string **toBinaryString** (int value)  
*Returns a string representation of the integer argument as an unsigned integer in base 2.*

- static int **highestOneBit** (int value)  
*Returns an int value with at most a single one-bit, in the position of the highest-order ("leftmost") one-bit in the specified int value.*
- static int **lowestOneBit** (int value)  
*Returns an int value with at most a single one-bit, in the position of the lowest-order ("rightmost") one-bit in the specified int value.*
- static int **numberOfLeadingZeros** (int value)  
*Returns the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified int value.*
- static int **numberOfTrailingZeros** (int value)  
*Returns the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified int value.*
- static int **rotateLeft** (int value, int distance)  
*Returns the value obtained by rotating the two's complement binary representation of the specified int value left by the specified number of bits.*
- static int **rotateRight** (int value, int distance)  
*Returns the value obtained by rotating the two's complement binary representation of the specified int value right by the specified number of bits.*
- static int **signum** (int value)  
*Returns the signum function of the specified int value.*

## Static Public Attributes

- static const int **SIZE** = 32  
*The size in bits of the primitive int type.*
- static const int **MAX\_VALUE** = (int)0x7FFFFFFF  
*The maximum value that the primitive type can hold.*
- static const int **MIN\_VALUE** = (int)0x80000000  
*The minimum value that the primitive type can hold.*

## 6.339.1 Constructor & Destructor Documentation

### 6.339.1.1 decaf::lang::Integer::Integer (int value)

#### Parameters:

*value* The primitive value to wrap in an Integer (p. 1762) instance.



### 6.339.1.2 decaf::lang::Integer::Integer (const std::string & *value*) throw ( exceptions::NumberFormatException )

**Parameters:**

*value* The base 10 encoded string to decode to an `Integer` (p.1762) and wrap.

**Exceptions:**

*NumberFormatException*

### 6.339.1.3 virtual decaf::lang::Integer::~~Integer () [inline, virtual]

## 6.339.2 Member Function Documentation

### 6.339.2.1 static int decaf::lang::Integer::bitCount (int *value*) [static]

Returns the number of one-bits in the two's complement binary representation of the specified int value. This function is sometimes referred to as the population count.

**Parameters:**

*value* - the int to count

**Returns:**

the number of one-bits in the two's complement binary representation of the specified int value.

### 6.339.2.2 virtual unsigned char decaf::lang::Integer::byteValue () const [inline, virtual]

Answers the byte value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p.2432).

### 6.339.2.3 virtual int decaf::lang::Integer::compareTo (const int & *i*) const [virtual]

Compares this `Integer` (p.1762) instance with another.

**Parameters:**

*i* - the `Integer` (p.1762) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< int >` (p.1083).

#### 6.339.2.4 `virtual int decaf::lang::Integer::compareTo (const Integer & i) const` [virtual]

Compares this **Integer** (p.1762) instance with another.

##### Parameters:

*i* - the **Integer** (p.1762) instance to be compared

##### Returns:

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable**< **Integer** > (p.1083).

#### 6.339.2.5 `static Integer decaf::lang::Integer::decode (const std::string & value) throw ( exceptions::NumberFormatException )` [static]

Decodes a String into a **Integer** (p.1762). Accepts decimal, hexadecimal, and octal numbers given by the following grammar:

The sequence of characters following an (optional) negative sign and/or radix specifier ("0x", "0X", "#", or leading zero) is parsed as by the Integer.parseInt method with the indicated radix (10, 16, or 8). This sequence of characters must represent a positive value or a NumberFormatException will be thrown. The result is negated if first character of the specified String is the minus sign. No whitespace characters are permitted in the string.

##### Parameters:

*value* - The string to decode

##### Returns:

a **Integer** (p.1762) object containing the decoded value

##### Exceptions:

*NumberFormatException* if the string is not formatted correctly.

#### 6.339.2.6 `virtual double decaf::lang::Integer::doubleValue () const` [inline, virtual]

Answers the double value which the receiver represents.

##### Returns:

double the value of the receiver.

Implements **decaf::lang::Number** (p.2433).

**6.339.2.7** `bool decaf::lang::Integer::equals (const int & i) const [inline, virtual]`**Parameters:**

*i* - the **Integer** (p.1762) object to compare against.

**Returns:**

true if the two **Integer** (p.1762) Objects have the same value.

Implements **decaf::lang::Comparable**< **int** > (p.1084).

**6.339.2.8** `bool decaf::lang::Integer::equals (const Integer & i) const [inline, virtual]`**Parameters:**

*i* - the **Integer** (p.1762) object to compare against.

**Returns:**

true if the two **Integer** (p.1762) Objects have the same value.

Implements **decaf::lang::Comparable**< **Integer** > (p.1084).

**6.339.2.9** `virtual float decaf::lang::Integer::floatValue () const [inline, virtual]`

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implements **decaf::lang::Number** (p.2433).

**6.339.2.10** `static int decaf::lang::Integer::highestOneBit (int value) [static]`

Returns an int value with at most a single one-bit, in the position of the highest-order ("leftmost") one-bit in the specified int value. Returns zero if the specified value has no one-bits in its two's complement binary representation, that is, if it is equal to zero.

**Parameters:**

*value* - the int to be inspected

**Returns:**

an int value with a single one-bit, in the position of the highest-order one-bit in the specified value, or zero if the specified value is itself equal to zero.

**6.339.2.11** `virtual int decaf::lang::Integer::intValue () const [inline, virtual]`

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.339.2.12** `virtual long long decaf::lang::Integer::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.339.2.13** `static int decaf::lang::Integer::lowestOneBit (int value) [static]`

Returns an int value with at most a single one-bit, in the position of the lowest-order ("rightmost") one-bit in the specified int value. Returns zero if the specified value has no one-bits in its two's complement binary representation, that is, if it is equal to zero.

**Parameters:**

*value* - the int to be inspected

**Returns:**

an int value with a single one-bit, in the position of the lowest-order one-bit in the specified value, or zero if the specified value is itself equal to zero.

**6.339.2.14** `static int decaf::lang::Integer::numberOfLeadingZeros (int value) [static]`

Returns the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified int value. Returns 32 if the specified value has no one-bits in its two's complement representation, in other words if it is equal to zero.

Note that this method is closely related to the logarithm base 2. For all positive int values x:

$\text{* floor}(\log_2(x)) = 31 - \text{numberOfLeadingZeros}(x)$  \*  $\text{* ceil}(\log_2(x)) = 32 - \text{numberOfLeadingZeros}(x - 1)$

**Parameters:**

*value* - the int to be inspected

**Returns:**

the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified int value, or 32 if the value is equal to zero.

**6.339.2.15**    **static int decaf::lang::Integer::numberOfTrailingZeros (int *value*)**  
                  [static]

Returns the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified int value. Returns 32 if the specified value has no one-bits in its two's complement representation, in other words if it is equal to zero.

**Parameters:**

*value* - the int to be inspected

**Returns:**

the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified int value, or 32 if the value is equal to zero.

**6.339.2.16**    **virtual bool decaf::lang::Integer::operator< (const int & *i*) const**  
                  [inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*i* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< int >** (p. 1084).

**6.339.2.17**    **virtual bool decaf::lang::Integer::operator< (const Integer & *i*) const**  
                  [inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*i* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Integer >** (p. 1084).

**6.339.2.18**    **virtual bool decaf::lang::Integer::operator== (const int & *i*) const**  
                  [inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*i* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< int >** (p. 1085).

**6.339.2.19** `virtual bool decaf::lang::Integer::operator==(const Integer & i) const`  
`[inline, virtual]`

Compares equality between this object and the one passed.

**Parameters:**

*i* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Integer >** (p. 1085).

**6.339.2.20** `static int decaf::lang::Integer::parseInt (const std::string & s) throw (`  
`exceptions::NumberFormatException ) [static]`

Parses the string argument as a signed decimal int. The characters in the string must all be decimal digits, except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting int value is returned, exactly as if the argument and the radix 10 were given as arguments to the `parseInt( const std::string, int )` method.

**Parameters:**

*s* - String to convert to a int

**Returns:**

the converted int value

**Exceptions:**

*NumberFormatException* if the string is not a int.

**6.339.2.21** `static int decaf::lang::Integer::parseInt (const std::string & s, int radix)`  
`throw ( exceptions::NumberFormatException ) [static]`

Parses the string argument as a signed int in the radix specified by the second argument. The characters in the string must all be digits, of the specified radix (as determined by whether **Character.digit(char, int)** (p. 985) returns a nonnegative value) except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting byte value is returned.

An exception of type `NumberFormatException` is thrown if any of the following situations occurs:  
 \* The first argument is null or is a string of length zero. \* The radix is either smaller than

**Character.MIN\_RADIX** (p. 989) or larger than **Character.MAX\_RADIX** (p. 989). \* Any character of the string is not a digit of the specified radix, except that the first character may be a minus sign '-' provided that the string is longer than length 1. \* The value represented by the string is not a value of type int.

**Parameters:**

*s* - the String containing the int representation to be parsed  
*radix* - the radix to be used while parsing *s*

**Returns:**

the int represented by the string argument in the specified radix.

**Exceptions:**

*NumberFormatException* - If String does not contain a parsable int.

**6.339.2.22** static int decaf::lang::Integer::reverse (int *value*) [static]

Returns the value obtained by reversing the order of the bits in the two's complement binary representation of the specified int value.

**Parameters:**

*value* - the value whose bits are to be reversed

**Returns:**

the reversed bits int.

**6.339.2.23** static int decaf::lang::Integer::reverseBytes (int *value*) [static]

Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified int value.

**Parameters:**

*value* - the int whose bytes we are to reverse

**Returns:**

the reversed int.

**6.339.2.24** static int decaf::lang::Integer::rotateLeft (int *value*, int *distance*) [static]

Returns the value obtained by rotating the two's complement binary representation of the specified int value left by the specified number of bits. (Bits shifted out of the left hand, or high-order, side reenter on the right, or low-order.)

Note that left rotation with a negative distance is equivalent to right rotation: rotateLeft(val, -distance) == rotateRight(val, distance). Note also that rotation by any multiple of 32 is a no-op, so all but the last five bits of the rotation distance can be ignored, even if the distance is negative: rotateLeft(val, distance) == rotateLeft(val, distance & 0x1F).

**Parameters:**

*value* - the int to be inspected  
*distance* - the number of bits to rotate

**Returns:**

the value obtained by rotating the two's complement binary representation of the specified int value left by the specified number of bits.

**6.339.2.25** `static int decaf::lang::Integer::rotateRight (int value, int distance)`  
[static]

Returns the value obtained by rotating the two's complement binary representation of the specified int value right by the specified number of bits. (Bits shifted out of the right hand, or low-order, side reenter on the left, or high-order.)

Note that right rotation with a negative distance is equivalent to left rotation: `rotateRight(val, -distance) == rotateLeft(val, distance)`. Note also that rotation by any multiple of 32 is a no-op, so all but the last five bits of the rotation distance can be ignored, even if the distance is negative: `rotateRight(val, distance) == rotateRight(val, distance & 0x1F)`.

**Parameters:**

*value* - the int to be inspected  
*distance* - the number of bits to rotate

**Returns:**

the value obtained by rotating the two's complement binary representation of the specified int value right by the specified number of bits.

**6.339.2.26** `virtual short decaf::lang::Integer::shortValue () const` [inline, virtual]

Answers the short value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2434).

**6.339.2.27** `static int decaf::lang::Integer::signum (int value)` [static]

Returns the signum function of the specified int value. (The return value is -1 if the specified value is negative; 0 if the specified value is zero; and 1 if the specified value is positive.)

**Parameters:**

*value* - the int to be inspected

**Returns:**

the signum function of the specified int value.



**6.339.2.28**    `static std::string decaf::lang::Integer::toBinaryString (int value)`  
                  [static]

Returns a string representation of the integer argument as an unsigned integer in base 2. The unsigned integer value is the argument plus  $2^{32}$  if the argument is negative; otherwise it is equal to the argument. This value is converted to a string of ASCII digits in binary (base 2) with no extra leading 0s. If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character.

The characters '0' and '1' are used as binary digits.

**Parameters:**

*value* - the int to be translated to a binary string

**Returns:**

the unsigned int value as a binary string

**6.339.2.29**    `static std::string decaf::lang::Integer::toHexString (int value)` [static]

Returns a string representation of the integer argument as an unsigned integer in base 16. The unsigned integer value is the argument plus  $2^{32}$  if the argument is negative; otherwise, it is equal to the argument. This value is converted to a string of ASCII digits in hexadecimal (base 16) with no extra leading 0s. If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character. The following characters are used as hexadecimal digits:

0123456789abcdef

If uppercase letters are desired, the toUpperCase() method may be called on the result:

**Parameters:**

*value* - the int to be translated to an Octal string

**Returns:**

the unsigned int value as a Octal string

**6.339.2.30**    `static std::string decaf::lang::Integer::toOctalString (int value)` [static]

Returns a string representation of the integer argument as an unsigned integer in base 8. The unsigned integer value is the argument plus  $2^{32}$  if the argument is negative; otherwise, it is equal to the argument. This value is converted to a string of ASCII digits in octal (base 8) with no extra leading 0s.

If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character. The following characters are used as octal digits:

01234567

**Parameters:**

*value* - the int to be translated to an Octal string

**Returns:**

the unsigned int value as a Octal string

### 6.339.2.31 `static std::string decaf::lang::Integer::toString (int value, int radix)` [static]

Returns a string representation of the first argument in the radix specified by the second argument. If the radix is smaller than **Character.MIN\_RADIX** (p.989) or larger than **Character.MAX\_RADIX** (p.989), then the radix 10 is used instead.

If the first argument is negative, the first element of the result is the ASCII minus character '-'. If the first argument is not negative, no sign character appears in the result.

The remaining characters of the result represent the magnitude of the first argument. If the magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the magnitude will not be the zero character. The following ASCII characters are used as digits:

0123456789abcdefghijklmnopqrstuvwxyz

**Parameters:**

*value* - the int to convert to a string

*radix* - the radix to format the string in

**Returns:**

an int formatted to the string value of the radix given.

### 6.339.2.32 `static std::string decaf::lang::Integer::toString (int value)` [static]

Converts the int to a String representation.

**Parameters:**

*value* The int to convert to a `std::string` instance.

**Returns:**

string representation

### 6.339.2.33 `std::string decaf::lang::Integer::toString () const`

**Returns:**

this `Integer` (p.1762) Object as a String Representation

### 6.339.2.34 `static Integer decaf::lang::Integer::valueOf (const std::string & value, int radix) throw ( exceptions::NumberFormatException )` [static]

Returns a **Integer** (p.1762) object holding the value extracted from the specified `std::string` when parsed with the radix given by the second argument. The first argument is interpreted as

representing a signed int in the radix specified by the second argument, exactly as if the argument were given to the `parseInt( std::string, int )` method. The result is a **Integer** (p. 1762) object that represents the int value specified by the string.

**Parameters:**

*value* - std::string to parse as base ( radix )

*radix* - base of the string to parse.

**Returns:**

new **Integer** (p. 1762) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a valid int.

**6.339.2.35**    `static Integer decaf::lang::Integer::valueOf (const std::string & value)  
                  throw ( exceptions::NumberFormatException ) [static]`

Returns a **Integer** (p. 1762) object holding the value given by the specified std::string. The argument is interpreted as representing a signed decimal int, exactly as if the argument were given to the `parseInt( std::string )` method. The result is a **Integer** (p. 1762) object that represents the int value specified by the string.

**Parameters:**

*value* - std::string to parse as base 10

**Returns:**

new **Integer** (p. 1762) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a decimal int.

**6.339.2.36**    `static Integer decaf::lang::Integer::valueOf (int value) [inline, static]`

Returns a **Integer** (p. 1762) instance representing the specified int value.

**Parameters:**

*value* - the int to wrap

**Returns:**

the new **Integer** (p. 1762) object wrapping value.

### 6.339.3 Field Documentation

**6.339.3.1**    `const int decaf::lang::Integer::MAX_VALUE = (int)0xFFFFFFFF  
                  [static]`

The maximum value that the primitive type can hold.

**6.339.3.2** `const int decaf::lang::Integer::MIN_VALUE = (int)0x80000000` [static]

The minimum value that the primitive type can hold.

**6.339.3.3** `const int decaf::lang::Integer::SIZE = 32` [static]

The size in bits of the primitive int type.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Integer.h`

## 6.340 activemq::commands::IntegerResponse Class Reference

#include <src/main/activemq/commands/IntegerResponse.h> Inheritance diagram for activemq::commands::IntegerResponse:

### Public Member Functions

- **IntegerResponse** ()
- virtual **~IntegerResponse** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **IntegerResponse \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getResult** () const
- virtual void **setResult** (int result)

### Static Public Attributes

- static const unsigned char **ID\_INTEGERRESPONSE** = 34

### Protected Member Functions

- **IntegerResponse** (const **IntegerResponse** &)
- **IntegerResponse & operator=** (const **IntegerResponse** &)

### Protected Attributes

- int **result**

### 6.340.1 Constructor & Destructor Documentation

- 6.340.1.1** `activemq::commands::IntegerResponse::IntegerResponse (const IntegerResponse &) [inline, protected]`
- 6.340.1.2** `activemq::commands::IntegerResponse::IntegerResponse ()`
- 6.340.1.3** `virtual activemq::commands::IntegerResponse::~~IntegerResponse () [virtual]`

### 6.340.2 Member Function Documentation

- 6.340.2.1** `virtual IntegerResponse* activemq::commands::IntegerResponse::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Reimplemented from `activemq::commands::Response` (p.2782).

- 6.340.2.2** `virtual void activemq::commands::IntegerResponse::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

**Parameters:**

*src* - Source Object

Reimplemented from `activemq::commands::Response` (p.2782).

- 6.340.2.3** `virtual bool activemq::commands::IntegerResponse::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p.1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::Response` (p.2782).

- 6.340.2.4** `virtual unsigned char activemq::commands::IntegerResponse::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Reimplemented from **activemq::commands::Response** (p. 2783).

**6.340.2.5** `virtual int activemq::commands::IntegerResponse::getResult () const`  
[virtual]

**6.340.2.6** `IntegerResponse& activemq::commands::IntegerResponse::operator=`  
`(const IntegerResponse &) [inline, protected]`

**6.340.2.7** `virtual void activemq::commands::IntegerResponse::setResult (int result)`  
[virtual]

**6.340.2.8** `virtual std::string activemq::commands::IntegerResponse::toString ()`  
`const [virtual]`

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::Response** (p. 2783).

**6.340.3 Field Documentation**

**6.340.3.1** `const unsigned char activemq::commands::IntegerResponse::ID_ -`  
`INTEGERRESPONSE = 34 [static]`

**6.340.3.2** `int activemq::commands::IntegerResponse::result [protected]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/IntegerResponse.h`

## 6.341 activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1780).

#include <src/main/activemq/wireformat/openwire/marshal/v2/IntegerResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller:

### Public Member Functions

- **IntegerResponseMarshaller** ()
- virtual **~IntegerResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.341.1 Detailed Description

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1780). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.341.2 Constructor & Destructor Documentation

**6.341.2.1** `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::IntegerResponseMarshaller()` [inline]

**6.341.2.2** `virtual activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::~~IntegerResponseMarshaller()` [inline, virtual]

## 6.341.3 Member Function Documentation

**6.341.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.341.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.341.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2792).

**6.341.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.341.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller` (p. 2793).

**6.341.3.6** virtual void activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2794).

**6.341.3.7** virtual void activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller** (p. 2795).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/IntegerResponseMarshaller.h

## 6.342 activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1784).

#include <src/main/activemq/wireformat/openwire/marshal/v1/IntegerResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller:

### Public Member Functions

- **IntegerResponseMarshaller** ()
- virtual **~IntegerResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.342.1 Detailed Description

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1784). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.342.2 Constructor & Destructor Documentation

**6.342.2.1** `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::IntegerResponseMarshaller()` `[inline]`

**6.342.2.2** `virtual activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::~~IntegerResponseMarshaller()` `[inline, virtual]`

## 6.342.3 Member Function Documentation

**6.342.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.342.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.342.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2807).

**6.342.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2808).

**6.342.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller` (p. 2808).

**6.342.3.6** virtual void activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2809).

**6.342.3.7** virtual void activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller** (p. 2810).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/IntegerResponseMarshaller.h

## 6.343 activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1788).

#include <src/main/activemq/wireformat/openwire/marshal/v3/IntegerResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller:

### Public Member Functions

- **IntegerResponseMarshaller** ()
- virtual **~IntegerResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.343.1 Detailed Description

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1788). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.343.2 Constructor & Destructor Documentation

**6.343.2.1** `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::IntegerResponseMarshaller()` `[inline]`

**6.343.2.2** `virtual activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::~~IntegerResponseMarshaller()` `[inline, virtual]`

## 6.343.3 Member Function Documentation

**6.343.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.343.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.343.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2797).

**6.343.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.343.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller` (p. 2798).

**6.343.3.6** virtual void activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2799).

**6.343.3.7** virtual void activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller** (p. 2800).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/IntegerResponseMarshaller.h

## 6.344 activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1792).

#include <src/main/activemq/wireformat/openwire/marshal/v4/IntegerResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller:

### Public Member Functions

- **IntegerResponseMarshaller** ()
- virtual **~IntegerResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.344.1 Detailed Description

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1792). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.344.2 Constructor & Destructor Documentation

**6.344.2.1** `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::IntegerResponseMarshaller()` [inline]

**6.344.2.2** `virtual activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::~~IntegerResponseMarshaller()` [inline, virtual]

## 6.344.3 Member Function Documentation

**6.344.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.344.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.344.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2812).

**6.344.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.344.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller` (p. 2813).

**6.344.3.6** virtual void activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2814).

**6.344.3.7** virtual void activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller** (p. 2815).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/IntegerResponseMarshaller.h

## 6.345 activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1796).

#include <src/main/activemq/wireformat/openwire/marshal/v5/IntegerResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller:

### Public Member Functions

- **IntegerResponseMarshaller** ()
- virtual **~IntegerResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.345.1 Detailed Description

Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p.1796). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.345.2 Constructor & Destructor Documentation

**6.345.2.1** `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::IntegerResponseMarshaller()` [inline]

**6.345.2.2** `virtual activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::~~IntegerResponseMarshaller()` [inline, virtual]

## 6.345.3 Member Function Documentation

**6.345.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.345.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.345.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2802).

**6.345.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2803).

**6.345.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller` (p. 2803).

**6.345.3.6** virtual void activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2804).

**6.345.3.7** virtual void activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller** (p. 2805).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**IntegerResponseMarshaller.h**

## 6.346 activemq::transport::mock::InternalCommandListener Class Reference

Listens for Commands sent from the **MockTransport** (p. 2371).

#include <src/main/activemq/transport/mock/InternalCommandListener.h>Inheritance diagram for activemq::transport::mock::InternalCommandListener:

### Public Member Functions

- **InternalCommandListener** ()
- virtual **~InternalCommandListener** ()
- void **setTransport** (**MockTransport** \*transport)
- void **setResponseBuilder** (const **Pointer**< **ResponseBuilder** > &responseBuilder)
- virtual void **onCommand** (const **Pointer**< **Command** > &command)  
*Event handler for the receipt of a command.*
- void **run** ()

### 6.346.1 Detailed Description

Listens for Commands sent from the **MockTransport** (p. 2371). This class processes all outbound commands and sends responses that are constructed by calling the Protocol provided **ResponseBuilder** (p. 2785) and getting a set of Commands to send back into the **MockTransport** (p. 2371) as incoming Commands and Responses.

### 6.346.2 Constructor & Destructor Documentation

**6.346.2.1** **activemq::transport::mock::InternalCommandListener::InternalCommandListener** ()

**6.346.2.2** **virtual**  
**activemq::transport::mock::InternalCommandListener::~~InternalCommandListener**  
 () [virtual]

### 6.346.3 Member Function Documentation

**6.346.3.1** **virtual void** **activemq::transport::mock::InternalCommandListener::onCommand** (const **Pointer**< **Command** > & *command*) [virtual]

Event handler for the receipt of a command. The transport passes off all received commands to its listeners, the listener then owns the Object. If there is no registered listener the **Transport** (p. 3273) deletes the command upon receipt.

#### Parameters:

*command* the received command object.

Implements **activemq::transport::TransportListener** (p. 3289).

**6.346.3.2** void activemq::transport::mock::InternalCommandListener::run ()

**6.346.3.3** void activemq::transport::mock::InternalCommandListener::setResponseBuilder (const Pointer< ResponseBuilder > & *responseBuilder*) [inline]

**6.346.3.4** void activemq::transport::mock::InternalCommandListener::setTransport (MockTransport \* *transport*) [inline]

The documentation for this class was generated from the following file:

- src/main/activemq/transport/mock/**InternalCommandListener.h**

## 6.347 decaf::lang::exceptions::InterruptedException Class Reference

#include <src/main/decaf/lang/exceptions/InterruptedException.h> Inheritance diagram for decaf::lang::exceptions::InterruptedException:

### Public Member Functions

- **InterruptedException** () throw ()  
*Default Constructor.*
- **InterruptedException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **InterruptedException** (const **InterruptedException** &ex) throw ()  
*Copy Constructor.*
- **InterruptedException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **InterruptedException** (const std::exception \*cause) throw ()  
*Constructor.*
- **InterruptedException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **InterruptedException** \* **clone** () const  
*Clones this exception.*
- virtual ~**InterruptedException** () throw ()

### 6.347.1 Constructor & Destructor Documentation

#### 6.347.1.1 decaf::lang::exceptions::InterruptedException::InterruptedException () throw () [inline]

Default Constructor.

#### 6.347.1.2 decaf::lang::exceptions::InterruptedException::InterruptedException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.347.1.3 decaf::lang::exceptions::InterruptedException::InterruptedException**  
(const InterruptedException & *ex*) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.347.1.4 decaf::lang::exceptions::InterruptedException::InterruptedException**  
(const char \* *file*, const int *lineNumber*, const std::exception \* *cause*,  
const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.347.1.5 decaf::lang::exceptions::InterruptedException::InterruptedException**  
(const std::exception \* *cause*) throw () [inline]

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.347.1.6 decaf::lang::exceptions::InterruptedException::InterruptedException**  
(const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.347.1.7**    **virtual**  
          `decaf::lang::exceptions::InterruptedException::~~InterruptedException ()`  
          `throw ()`    `[inline, virtual]`

## **6.347.2    Member Function Documentation**

**6.347.2.1**    **virtual** `InterruptedException*` `de-`  
          `caf::lang::exceptions::InterruptedException::clone ()` `const`  
          `[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p.1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p.1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/InterruptedException.h`



## 6.348 decaf::io::InterruptedIOException Class Reference

#include <src/main/decaf/io/InterruptedIOException.h> Inheritance diagram for decaf::io::InterruptedIOException:

### Public Member Functions

- **InterruptedIOException** () throw ()  
*Default Constructor.*
- **InterruptedIOException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **InterruptedIOException** (const InterruptedIOException &ex) throw ()  
*Copy Constructor.*
- **InterruptedIOException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **InterruptedIOException** (const std::exception \*cause) throw ()  
*Constructor.*
- **InterruptedIOException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **InterruptedIOException** \* clone () const  
*Clones this exception.*
- virtual ~**InterruptedIOException** () throw ()

### 6.348.1 Constructor & Destructor Documentation

#### 6.348.1.1 decaf::io::InterruptedIOException::InterruptedIOException () throw () [inline]

Default Constructor.

#### 6.348.1.2 decaf::io::InterruptedIOException::InterruptedIOException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy

### 6.348.1.3 `decaf::io::InterruptedIOException::InterruptedIOException (const InterruptedIOException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* the exception to copy, which is an instance of this type

### 6.348.1.4 `decaf::io::InterruptedIOException::InterruptedIOException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.348.1.5 `decaf::io::InterruptedIOException::InterruptedIOException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.348.1.6 `decaf::io::InterruptedIOException::InterruptedIOException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor.

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.348.1.7** virtual decaf::io::InterruptedIOException::~~InterruptedIOException ()  
throw () [inline, virtual]

## 6.348.2 Member Function Documentation

**6.348.2.1** virtual InterruptedIOException\* decaf::io::InterruptedIOException::clone  
( ) const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new exception that is a copy of this one.

Reimplemented from **decaf::io::IOException** (p. 1822).

Reimplemented in **decaf::net::SocketTimeoutException** (p. 2992).

The documentation for this class was generated from the following file:

- src/main/decaf/io/**InterruptedIOException.h**

## 6.349 cms::InvalidClientIdException Class Reference

This exception must be thrown when a client attempts to set a connection's client ID to a value that is rejected by a provider.

#include <src/main/cms/InvalidClientIdException.h> Inheritance diagram for cms::InvalidClientIdException:

### Public Member Functions

- **InvalidClientIdException** () throw ()
- **InvalidClientIdException** (const **InvalidClientIdException** &ex) throw ()
- **InvalidClientIdException** (const std::string &message, const std::exception \*cause) throw ()
- **InvalidClientIdException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**InvalidClientIdException** () throw ()

### 6.349.1 Detailed Description

This exception must be thrown when a client attempts to set a connection's client ID to a value that is rejected by a provider.

Since:

1.3

### 6.349.2 Constructor & Destructor Documentation

- 6.349.2.1** cms::InvalidClientIdException::InvalidClientIdException () throw ()
- 6.349.2.2** cms::InvalidClientIdException::InvalidClientIdException (const InvalidClientIdException & ex) throw ()
- 6.349.2.3** cms::InvalidClientIdException::InvalidClientIdException (const std::string & message, const std::exception \* cause) throw ()
- 6.349.2.4** cms::InvalidClientIdException::InvalidClientIdException (const std::string & message, const std::exception \* cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()
- 6.349.2.5** virtual cms::InvalidClientIdException::~InvalidClientIdException () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/InvalidClientIdException.h

## 6.350 cms::InvalidDestinationException Class Reference

This exception must be thrown when a destination either is not understood by a provider or is no longer valid.

#include <src/main/cms/InvalidDestinationException.h> Inheritance diagram for cms::InvalidDestinationException:

### Public Member Functions

- **InvalidDestinationException** () throw ()
- **InvalidDestinationException** (const **InvalidDestinationException** &ex) throw ()
- **InvalidDestinationException** (const std::string &message, const std::exception \*cause) throw ()
- **InvalidDestinationException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**InvalidDestinationException** () throw ()

### 6.350.1 Detailed Description

This exception must be thrown when a destination either is not understood by a provider or is no longer valid.

Since:

1.3

### 6.350.2 Constructor & Destructor Documentation

- 6.350.2.1 **cms::InvalidDestinationException::InvalidDestinationException** () throw ()
- 6.350.2.2 **cms::InvalidDestinationException::InvalidDestinationException** (const **InvalidDestinationException** & *ex*) throw ()
- 6.350.2.3 **cms::InvalidDestinationException::InvalidDestinationException** (const std::string & *message*, const std::exception \* *cause*) throw ()
- 6.350.2.4 **cms::InvalidDestinationException::InvalidDestinationException** (const std::string & *message*, const std::exception \* *cause*, const std::vector< std::pair< std::string, int > > & *stackTrace*) throw ()
- 6.350.2.5 virtual **cms::InvalidDestinationException::~~InvalidDestinationException** () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/**InvalidDestinationException.h**

## 6.351 decaf::security::InvalidKeyException Class Reference

`#include <src/main/decaf/security/InvalidKeyException.h>` Inheritance diagram for decaf::security::InvalidKeyException:

### Public Member Functions

- **InvalidKeyException** () throw ()  
*Default Constructor.*
- **InvalidKeyException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **InvalidKeyException** (const **InvalidKeyException** &ex) throw ()  
*Copy Constructor.*
- **InvalidKeyException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **InvalidKeyException** (const std::exception \*cause) throw ()  
*Constructor.*
- **InvalidKeyException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **InvalidKeyException** \* clone () const  
*Clones this exception.*
- virtual ~**InvalidKeyException** () throw ()

### 6.351.1 Constructor & Destructor Documentation

#### 6.351.1.1 decaf::security::InvalidKeyException::InvalidKeyException () throw () [inline]

Default Constructor.

#### 6.351.1.2 decaf::security::InvalidKeyException::InvalidKeyException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.351.1.3 decaf::security::InvalidKeyException::InvalidKeyException (const InvalidKeyException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.351.1.4 decaf::security::InvalidKeyException::InvalidKeyException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.351.1.5 decaf::security::InvalidKeyException::InvalidKeyException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.351.1.6 decaf::security::InvalidKeyException::InvalidKeyException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.351.1.7** `virtual decaf::security::InvalidKeyException::~~InvalidKeyException ()  
throw () [inline, virtual]`

## **6.351.2 Member Function Documentation**

**6.351.2.1** `virtual InvalidKeyException* decaf::security::InvalidKeyException::clone  
() const [inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

A deep copy of this exception.

Reimplemented from `decaf::security::KeyException` (p. 1957).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/InvalidKeyException.h`



## 6.352 decaf::nio::InvalidMarkException Class Reference

#include <src/main/decaf/nio/InvalidMarkException.h> Inheritance diagram for decaf::nio::InvalidMarkException:

### Public Member Functions

- **InvalidMarkException** () throw ()  
*Default Constructor.*
- **InvalidMarkException** (const lang::Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **InvalidMarkException** (const InvalidMarkException &ex) throw ()  
*Copy Constructor.*
- **InvalidMarkException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **InvalidMarkException** (const std::exception \*cause) throw ()  
*Constructor.*
- **InvalidMarkException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **InvalidMarkException** \* clone () const  
*Clones this exception.*
- virtual ~**InvalidMarkException** () throw ()

### 6.352.1 Constructor & Destructor Documentation

#### 6.352.1.1 decaf::nio::InvalidMarkException::InvalidMarkException () throw () [inline]

Default Constructor.

#### 6.352.1.2 decaf::nio::InvalidMarkException::InvalidMarkException (const lang::Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* The Exception whose state data is to be copied into this Exception.

### 6.352.1.3 `decaf::nio::InvalidMarkException::InvalidMarkException (const InvalidMarkException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* The Exception whose state data is to be copied into this Exception.

### 6.352.1.4 `decaf::nio::InvalidMarkException::InvalidMarkException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.352.1.5 `decaf::nio::InvalidMarkException::InvalidMarkException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.352.1.6 `decaf::nio::InvalidMarkException::InvalidMarkException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.352.1.7** virtual decaf::nio::InvalidMarkException::~InvalidMarkException ()  
throw () [inline, virtual]

## 6.352.2 Member Function Documentation

**6.352.2.1** virtual InvalidMarkException\* decaf::nio::InvalidMarkException::clone ()  
const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

A new Exception instance that is a copy of this Exception.

Reimplemented from **decaf::lang::exceptions::IllegalStateException** (p. 1728).

The documentation for this class was generated from the following file:

- src/main/decaf/nio/**InvalidMarkException.h**

## 6.353 cms::InvalidSelectorException Class Reference

This exception must be thrown when a CMS client attempts to give a provider a message selector with invalid syntax.

#include <src/main/cms/InvalidSelectorException.h> Inheritance diagram for cms::InvalidSelectorException:

### Public Member Functions

- **InvalidSelectorException** () throw ()
- **InvalidSelectorException** (const **InvalidSelectorException** &ex) throw ()
- **InvalidSelectorException** (const std::string &message, const std::exception \*cause) throw ()
- **InvalidSelectorException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**InvalidSelectorException** () throw ()

### 6.353.1 Detailed Description

This exception must be thrown when a CMS client attempts to give a provider a message selector with invalid syntax.

Since:

1.3

### 6.353.2 Constructor & Destructor Documentation

**6.353.2.1 cms::InvalidSelectorException::InvalidSelectorException () throw ()**

**6.353.2.2 cms::InvalidSelectorException::InvalidSelectorException (const InvalidSelectorException & ex) throw ()**

**6.353.2.3 cms::InvalidSelectorException::InvalidSelectorException (const std::string & message, const std::exception \* cause) throw ()**

**6.353.2.4 cms::InvalidSelectorException::InvalidSelectorException (const std::string & message, const std::exception \* cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()**

**6.353.2.5 virtual cms::InvalidSelectorException::~InvalidSelectorException () throw () [virtual]**

The documentation for this class was generated from the following file:

- src/main/cms/**InvalidSelectorException.h**

## 6.354 decaf::lang::exceptions::InvalidStateException Class Reference

#include <src/main/decaf/lang/exceptions/InvalidStateException.h> Inheritance diagram for decaf::lang::exceptions::InvalidStateException:

### Public Member Functions

- **InvalidStateException** () throw ()  
*Default Constructor.*
- **InvalidStateException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **InvalidStateException** (const **InvalidStateException** &ex) throw ()  
*Copy Constructor.*
- **InvalidStateException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **InvalidStateException** (const std::exception \*cause) throw ()  
*Constructor.*
- **InvalidStateException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **InvalidStateException** \* clone () const  
*Clones this exception.*
- virtual ~**InvalidStateException** () throw ()

### 6.354.1 Constructor & Destructor Documentation

#### 6.354.1.1 decaf::lang::exceptions::InvalidStateException::InvalidStateException () throw () [inline]

Default Constructor.

#### 6.354.1.2 decaf::lang::exceptions::InvalidStateException::InvalidStateException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.354.1.3 decaf::lang::exceptions::InvalidStateException::InvalidStateException (const InvalidStateException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.354.1.4 decaf::lang::exceptions::InvalidStateException::InvalidStateException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.354.1.5 decaf::lang::exceptions::InvalidStateException::InvalidStateException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.354.1.6 decaf::lang::exceptions::InvalidStateException::InvalidStateException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.354.1.7**    **virtual**  
          decaf::lang::exceptions::InvalidStateException::~InvalidStateException ()  
          throw () [inline, virtual]

## 6.354.2 Member Function Documentation

**6.354.2.1**    **virtual InvalidStateException\* de-**  
          **caf::lang::exceptions::InvalidStateException::clone () const**  
          [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**InvalidStateException.h**

## 6.355 decaf::io::IOException Class Reference

#include <src/main/decaf/io/IOException.h> Inheritance diagram for decaf::io::IOException:

### Public Member Functions

- **IOException** () throw ()  
*Default Constructor.*
- **IOException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **IOException** (const IOException &ex) throw ()  
*Copy Constructor.*
- **IOException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **IOException** (const std::exception \*cause) throw ()  
*Constructor.*
- **IOException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **IOException** \* clone () const  
*Clones this exception.*
- virtual ~**IOException** () throw ()

### 6.355.1 Constructor & Destructor Documentation

#### 6.355.1.1 decaf::io::IOException::IOException () throw () [inline]

Default Constructor.

#### 6.355.1.2 decaf::io::IOException::IOException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy



**6.355.1.3 decaf::io::IOException::IOException (const IOException & *ex*) throw ()**  
[inline]

Copy Constructor.

**Parameters:**

*ex* the exception to copy, which is an instance of this type

**6.355.1.4 decaf::io::IOException::IOException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw ()**  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.355.1.5 decaf::io::IOException::IOException (const std::exception \* *cause*) throw ()**  
[inline]

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.355.1.6 decaf::io::IOException::IOException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()**  
[inline]

Constructor.

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.355.1.7** `virtual decaf::io::IOException::~~IOException () throw () [inline, virtual]`

## 6.355.2 Member Function Documentation

**6.355.2.1** `virtual IOException* decaf::io::IOException::clone () const [inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new instance of an Exception that is a copy of this instance.

Reimplemented from `decaf::lang::Exception` (p. 1577).

Reimplemented in `decaf::io::EOFException` (p. 1573), `decaf::io::InterruptedIOException` (p. 1807), `decaf::io::UnsupportedEncodingException` (p. 3302), `decaf::io::UTFDataFormatException` (p. 3355), `decaf::net::BindException` (p. 723), `decaf::net::ConnectException` (p. 1130), `decaf::net::HttpRetryException` (p. 1719), `decaf::net::MalformedURLException` (p. 2093), `decaf::net::NoRouteToHostException` (p. 2419), `decaf::net::PortUnreachableException` (p. 2524), `decaf::net::ProtocolException` (p. 2669), `decaf::net::SocketException` (p. 2973), `decaf::net::SocketTimeoutException` (p. 2992), `decaf::net::UnknownHostException` (p. 3296), and `decaf::net::UnknownServiceException` (p. 3299).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/IOException.h`

## 6.356 activemq::transport::IOTransport Class Reference

Implementation of the **Transport** (p. 3273) interface that performs marshaling of commands to IO streams.

#include <src/main/activemq/transport/IOTransport.h> Inheritance diagram for activemq::transport::IOTransport:

### Public Member Functions

- **IOTransport** ()  
*Default Constructor.*
- **IOTransport** (const **Pointer**< **wireformat::WireFormat** > &wireFormat)  
*Create an instance of this **Transport** (p. 3273) and assign its WireFormat instance at creation time.*
- virtual ~**IOTransport** ()
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Not supported by this class - throws an exception.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Not supported by this class - throws an exception.*
- virtual void **setWireFormat** (const **Pointer**< **wireformat::WireFormat** > &wireFormat)  
*Sets the WireFormat instance to use.*
- virtual void **setTransportListener** (**TransportListener** \*listener)  
*Sets the observer of asynchronous exceptions from this transport.*
- virtual **TransportListener** \* **getTransportListener** () const  
*Gets the observer of asynchronous exceptions from this transport.*
- virtual void **setInputStream** (decaf::io::DataInputStream \*is)  
*Sets the input stream for in-coming commands.*
- virtual void **setOutputStream** (decaf::io::DataOutputStream \*os)  
*Sets the output stream for out-going commands.*
- virtual void **start** () throw ( decaf::io::IOException )  
*Starts this transport object and creates the thread for polling on the input stream for commands.*

- virtual void **stop** () throw ( decaf::io::IOException )  
*Stops the **Transport** (p. 3273), terminating any threads and stopping all read and write operations.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Stops the polling thread and closes the streams.*
- virtual void **run** ()  
*Runs the polling thread.*
- virtual **Transport \* narrow** (const std::type\_info &typeId)  
*Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.*
- virtual bool **isFaultTolerant** () const  
*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*
- virtual bool **isConnected** () const  
*Is the **Transport** (p. 3273) Connected to its Broker.*
- virtual bool **isClosed** () const  
*Has the **Transport** (p. 3273) been shutdown and no longer usable.*
- virtual std::string **getRemoteAddress** () const
- virtual void **reconnect** (const decaf::net::URI &uri AMQCPP\_UNUSED) throw ( decaf::io::IOException )  
*reconnect to another location*

### 6.356.1 Detailed Description

Implementation of the **Transport** (p. 3273) interface that performs marshaling of commands to IO streams. This class does not implement the request method, it only handles oneway messages. A thread polls on the input stream for in-coming commands. When a command is received, the command listener is notified. The polling thread is not started until the start method is called. The close method will close the associated streams. Close can be called explicitly by the user, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

### 6.356.2 Constructor & Destructor Documentation

#### 6.356.2.1 activemq::transport::IOTransport::IOTransport ()

Default Constructor.

#### 6.356.2.2 activemq::transport::IOTransport::IOTransport (const Pointer< wireformat::WireFormat > & wireFormat)

Create an instance of this **Transport** (p. 3273) and assign its WireFormat instance at creation time.

**Parameters:**

*wireFormat* Data encoder / decoder to use when reading and writing.

**6.356.2.3** virtual `activemq::transport::IOTransport::~~IOTransport ()` [virtual]

**6.356.3 Member Function Documentation**

**6.356.3.1** virtual `void activemq::transport::IOTransport::close () throw ( decaf::io::IOException )` [virtual]

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

**Exceptions:**

*IOException* if errors occur.

Implements `decaf::io::Closeable` (p. 1019).

**6.356.3.2** virtual `std::string activemq::transport::IOTransport::getRemoteAddress () const` [inline, virtual]

**Returns:**

the remote address for this connection

Implements `activemq::transport::Transport` (p. 3274).

**6.356.3.3** virtual `TransportListener* activemq::transport::IOTransport::getTransportListener () const` [inline, virtual]

Gets the observer of asynchronous exceptions from this transport.

**Returns:**

The listener of transport events.

Implements `activemq::transport::Transport` (p. 3274).

**6.356.3.4** virtual `bool activemq::transport::IOTransport::isClosed () const` [inline, virtual]

Has the `Transport` (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the `Transport` (p. 3273)

Implements `activemq::transport::Transport` (p. 3275).

**6.356.3.5** `virtual bool activemq::transport::IOTransport::isConnected () const`  
[inline, virtual]

Is the **Transport** (p. 3273) Connected to its Broker.

**Returns:**

true if a connection has been made.

Implements **activemq::transport::Transport** (p. 3275).

**6.356.3.6** `virtual bool activemq::transport::IOTransport::isFaultTolerant () const`  
[inline, virtual]

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

**Returns:**

true if the **Transport** (p. 3273) is fault tolerant.

Implements **activemq::transport::Transport** (p. 3275).

**6.356.3.7** `virtual Transport* activemq::transport::IOTransport::narrow (const std::type_info & typeId) [inline, virtual]`

Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.

**Parameters:**

*typeId* - The type\_info of the Object we are searching for.

**Returns:**

the requested Object. or NULL if its not in this chain.

Implements **activemq::transport::Transport** (p. 3275).

**6.356.3.8** `virtual void activemq::transport::IOTransport::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends a one-way command. Does not wait for any response from the broker.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3276).

**6.356.3.9** virtual void activemq::transport::IOTransport::reconnect  
(const decaf::net::URI &uri *AMQCPP\_UNUSED*) throw ( decaf::io::IOException ) [inline, virtual]

reconnect to another location

**Parameters:**

*uri*

**Exceptions:**

*IOException* on failure of if not supported

**6.356.3.10** virtual Pointer<Response> activemq::transport::IOTransport::request  
(const Pointer< Command > & *command*, unsigned  
int *timeout*) throw ( decaf::io::IOException,  
decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Not supported by this class - throws an exception.

**Parameters:**

*command* the command to be sent.

*timeout* the time to wait for a response.

**Returns:**

the response to the command sent.

**Exceptions:**

*UnsupportedOperationException.*

Implements **activemq::transport::Transport** (p. 3276).

**6.356.3.11** virtual Pointer<Response> activemq::transport::IOTransport::request  
(const Pointer< Command > & *command*)  
throw ( decaf::io::IOException, de-  
caaf::lang::exceptions::UnsupportedOperationException )  
[virtual]

Not supported by this class - throws an exception.

**Parameters:**

*command* the command to be sent.

**Returns:**

the response to the command sent.

**Exceptions:**

*UnsupportedOperationException.*

Implements **activemq::transport::Transport** (p. 3277).

**6.356.3.12** `virtual void activemq::transport::IOTransport::run ()` [virtual]

Runs the polling thread.

Implements `decaf::lang::Runnable` (p. 2816).

**6.356.3.13** `virtual void activemq::transport::IOTransport::setInputStream (decaf::io::DataInputStream * is)` [inline, virtual]

Sets the input stream for in-coming commands.

**Parameters:**

*is* The input stream.

**6.356.3.14** `virtual void activemq::transport::IOTransport::setOutputStream (decaf::io::DataOutputStream * os)` [inline, virtual]

Sets the output stream for out-going commands.

**Parameters:**

*os* The output stream.

**6.356.3.15** `virtual void activemq::transport::IOTransport::setTransportListener (TransportListener * listener)` [inline, virtual]

Sets the observer of asynchronous exceptions from this transport.

**Parameters:**

*listener* the listener of transport events.

Implements `activemq::transport::Transport` (p. 3277).

**6.356.3.16** `virtual void activemq::transport::IOTransport::setWireFormat (const Pointer< wireformat::WireFormat > & wireFormat)` [inline, virtual]

Sets the WireFormat instance to use.

**Parameters:**

*wireFormat* The WireFormat the object used to encode / decode commands.

Implements `activemq::transport::Transport` (p. 3278).

**6.356.3.17** `virtual void activemq::transport::IOTransport::start () throw (decaf::io::IOException)` [virtual]

Starts this transport object and creates the thread for polling on the input stream for commands. If this object has been closed, throws an exception. Before calling start, the caller must set the IO streams and the reader and writer objects.



**Exceptions:**

*CMSException* if an error occurs or if this transport has already been closed.

Implements **activemq::transport::Transport** (p. 3278).

**6.356.3.18** `virtual void activemq::transport::IOTransport::stop () throw ( decaf::io::IOException ) [virtual]`

Stops the **Transport** (p. 3273), terminating any threads and stopping all read and write operations.

**Exceptions:**

*IOException* if an error occurs while stopping the **Transport** (p. 3273).

Implements **activemq::transport::Transport** (p. 3278).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/IOTransport.h`

## 6.357 decaf::lang::Iterable< E > Class Template Reference

Implementing this interface allows an object to be cast to an **Iterable** (p. 1830) type for generic collections API calls.

#include <src/main/decaf/lang/Iterable.h> Inheritance diagram for decaf::lang::Iterable< E >:

### Public Member Functions

- virtual **~Iterable** ()
- virtual **decaf::util::Iterator< E > \* iterator** ()=0
- virtual **decaf::util::Iterator< E > \* iterator** () const =0

### 6.357.1 Detailed Description

**template<typename E> class decaf::lang::Iterable< E >**

Implementing this interface allows an object to be cast to an **Iterable** (p. 1830) type for generic collections API calls.

### 6.357.2 Constructor & Destructor Documentation

**6.357.2.1** **template<typename E> virtual decaf::lang::Iterable< E >::~~Iterable** ()  
[inline, virtual]

### 6.357.3 Member Function Documentation

**6.357.3.1** **template<typename E> virtual decaf::util::Iterator<E>\***  
**decaf::lang::Iterable< E >::iterator** () const [pure virtual]

Implemented in **decaf::util::PriorityQueue< E >** (p. 2575), **decaf::util::StlList< E >** (p. 3025), **decaf::util::StlSet< E >** (p. 3055), **decaf::util::StlList< CompositeTask \* >** (p. 3025), **decaf::util::StlList< URI >** (p. 3025), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3025), **decaf::util::StlList< PrimitiveValueNode >** (p. 3025), **decaf::util::StlList< Pointer< Command > >** (p. 3025), **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3025), **decaf::util::StlSet< transport::TransportListener \* >** (p. 3055), **decaf::util::StlSet< Pointer< Synchronization > >** (p. 3055), and **decaf::util::StlSet< ActiveMQSession \* >** (p. 3055).

**6.357.3.2** **template<typename E> virtual decaf::util::Iterator<E>\***  
**decaf::lang::Iterable< E >::iterator** () [pure virtual]

#### Returns:

an iterator over a set of elements of type T.

Implemented in **decaf::util::PriorityQueue< E >** (p. 2575), **decaf::util::StlList< E >** (p. 3026), **decaf::util::StlSet< E >** (p. 3055), **decaf::util::StlList< CompositeTask \* >**

(p. 3026), **decaf::util::StlList< URI >** (p. 3026), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3026), **decaf::util::StlList< PrimitiveValueNode >** (p. 3026), **decaf::util::StlList< Pointer< Command > >** (p. 3026), **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3026), **decaf::util::StlSet< transport::TransportListener \* >** (p. 3055), **decaf::util::StlSet< Pointer< Synchronization > >** (p. 3055), and **decaf::util::StlSet< ActiveMQSession \* >** (p. 3055).

Referenced by **decaf::util::AbstractCollection< Pointer< BackupTransport > >::clear()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::contains()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::copy()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::operator=()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::remove()**, **decaf::util::AbstractSet< ActiveMQSession \* >::removeAll()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::removeAll()**, **decaf::util::AbstractCollection< Pointer< BackupTransport > >::retainAll()**, and **decaf::util::AbstractCollection< Pointer< BackupTransport > >::toArray()**.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Iterable.h`

## 6.358 decaf::util::Iterator< T > Class Template Reference

Defines an object that can be used to iterate over the elements of a collection.

`#include <src/main/decaf/util/Iterator.h>`Inheritance diagram for `decaf::util::Iterator< T >`:

### Public Member Functions

- virtual `~Iterator ()`
- virtual `T next ()=0 throw ( lang::exceptions::NoSuchElementException )`  
*Returns the next element in the iteration.*
- virtual `bool hasNext () const =0`  
*Returns true if the iteration has more elements.*
- virtual `void remove ()=0 throw ( lang::exceptions::IllegalStateException, lang::exceptions::UnsupportedOperationException )`  
*Removes from the underlying collection the last element returned by the iterator (optional operation).*

### 6.358.1 Detailed Description

`template<typename T> class decaf::util::Iterator< T >`

Defines an object that can be used to iterate over the elements of a collection. The iterator provides a way to access and remove elements with well defined semantics.

### 6.358.2 Constructor & Destructor Documentation

**6.358.2.1** `template<typename T> virtual decaf::util::Iterator< T >::~~Iterator ()`  
`[inline, virtual]`

### 6.358.3 Member Function Documentation

**6.358.3.1** `template<typename T> virtual bool decaf::util::Iterator< T >::hasNext () const` `[pure virtual]`

Returns true if the iteration has more elements. Returns false if the next call to `next` would result in an `NoSuchElementException` to be thrown.

**6.358.3.2** `template<typename T> virtual T decaf::util::Iterator< T >::next ()`  
`throw ( lang::exceptions::NoSuchElementException )` `[pure virtual]`

Returns the next element in the iteration. Calling this method repeatedly until the `hasNext()` (p. 1832) method returns false will return each element in the underlying collection exactly once.

**Returns:**

next element in the iteration of elements

**Exceptions:**

*NoSuchElementException* - iteration has no more elements.

**6.358.3.3** `template<typename T> virtual void decaf::util::Iterator< T  
>::remove () throw ( lang::exceptions::IllegalStateException,  
lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Removes from the underlying collection the last element returned by the iterator (optional operation). This method can be called only once per call to next. The behavior of an iterator is unspecified if the underlying collection is modified while the iteration is in progress in any way other than by calling this method.

**Exceptions:**

*UnsupportedOperationException* - if the remove operation is not supported by this **Iterator** (p. 1832).

*IllegalStateException* - if the next method has not yet been called, or the remove method has already been called after the last call to the next method.

The documentation for this class was generated from the following file:

- src/main/decaf/util/**Iterator.h**

## 6.359 activemq::commands::JournalQueueAck Class Reference

#include <src/main/activemq/commands/JournalQueueAck.h> Inheritance diagram for activemq::commands::JournalQueueAck:

### Public Member Functions

- **JournalQueueAck** ()
- virtual **~JournalQueueAck** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **JournalQueueAck \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ActiveMQDestination** > &**getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > &**getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const **Pointer**< **MessageAck** > &**getMessageAck** () const
- virtual **Pointer**< **MessageAck** > &**getMessageAck** ()
- virtual void **setMessageAck** (const **Pointer**< **MessageAck** > &messageAck)

### Static Public Attributes

- static const unsigned char **ID\_JOURNALQUEUEACK** = 52

### Protected Member Functions

- **JournalQueueAck** (const **JournalQueueAck** &)
- **JournalQueueAck** & **operator=** (const **JournalQueueAck** &)

### Protected Attributes

- **Pointer**< **ActiveMQDestination** > **destination**
- **Pointer**< **MessageAck** > **messageAck**

## 6.359.1 Constructor & Destructor Documentation

- 6.359.1.1 **activemq::commands::JournalQueueAck::JournalQueueAck** (const JournalQueueAck &) [inline, protected]
- 6.359.1.2 **activemq::commands::JournalQueueAck::JournalQueueAck** ()
- 6.359.1.3 **virtual activemq::commands::JournalQueueAck::~~JournalQueueAck** () [virtual]

## 6.359.2 Member Function Documentation

- 6.359.2.1 **virtual JournalQueueAck\* activemq::commands::JournalQueueAck::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

- 6.359.2.2 **virtual void activemq::commands::JournalQueueAck::copyDataStructure** (const DataStructure \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

- 6.359.2.3 **virtual bool activemq::commands::JournalQueueAck::equals** (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

- 6.359.2.4 **virtual unsigned char activemq::commands::JournalQueueAck::getDataStructureType** () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

- 6.359.2.5 **virtual** **Pointer**<**ActiveMQDestination**>& **activemq::commands::JournalQueueAck::getDestination** ()  
[virtual]
- 6.359.2.6 **virtual** **const** **Pointer**<**ActiveMQDestination**>& **activemq::commands::JournalQueueAck::getDestination** () **const**  
[virtual]
- 6.359.2.7 **virtual** **Pointer**<**MessageAck**>& **activemq::commands::JournalQueueAck::getMessageAck** ()  
[virtual]
- 6.359.2.8 **virtual** **const** **Pointer**<**MessageAck**>& **activemq::commands::JournalQueueAck::getMessageAck** ()  
**const** [virtual]
- 6.359.2.9 **JournalQueueAck**& **activemq::commands::JournalQueueAck::operator=**  
(**const** **JournalQueueAck** &) [inline, protected]
- 6.359.2.10 **virtual** **void** **activemq::commands::JournalQueueAck::setDestination**  
(**const** **Pointer**< **ActiveMQDestination** > & *destination*) [virtual]
- 6.359.2.11 **virtual** **void** **activemq::commands::JournalQueueAck::setMessageAck**  
(**const** **Pointer**< **MessageAck** > & *messageAck*) [virtual]
- 6.359.2.12 **virtual** **std::string** **activemq::commands::JournalQueueAck::toString** ()  
**const** [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSet** (p. 718).



### 6.359.3 Field Documentation

- 6.359.3.1 `Pointer<ActiveMQDestination> activemq::commands::JournalQueueAck::destination`  
[protected]
- 6.359.3.2 `const unsigned char activemq::commands::JournalQueueAck::ID _JOURNALQUEUEACK = 52` [static]
- 6.359.3.3 `Pointer<MessageAck> activemq::commands::JournalQueueAck::messageAck`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/JournalQueueAck.h`

## 6.360 activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1838).

#include <src/main/activemq/wireformat/openwire/marshal/v2/JournalQueueAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller:

### Public Member Functions

- **JournalQueueAckMarshaller** ()
- virtual **~JournalQueueAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.360.1 Detailed Description

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1838). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.360.2 Constructor & Destructor Documentation

**6.360.2.1** `activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::JournalQueueAckMarshaller()` [inline]

**6.360.2.2** `virtual activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::~~JournalQueueAckMarshaller()` [inline, virtual]

## 6.360.3 Member Function Documentation

**6.360.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.360.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.360.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.360.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.360.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.360.3.6** virtual void activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.360.3.7** virtual void activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/JournalQueueAckMarshaller.h

## 6.361 activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1842).

#include <src/main/activemq/wireformat/openwire/marshal/v4/JournalQueueAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller:

### Public Member Functions

- **JournalQueueAckMarshaller** ()
- virtual **~JournalQueueAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.361.1 Detailed Description

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1842). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.361.2 Constructor & Destructor Documentation

**6.361.2.1** `activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::JournalQueueAckMarshaller()` [inline]

**6.361.2.2** `virtual activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::~~JournalQueueAckMarshaller()` [inline, virtual]

## 6.361.3 Member Function Documentation

**6.361.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.361.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.361.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.361.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.361.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.361.3.6** virtual void activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.361.3.7** virtual void activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**JournalQueueAckMarshaller.h**

## 6.362 activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1846).

#include <src/main/activemq/wireformat/openwire/marshal/v3/JournalQueueAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller:

### Public Member Functions

- **JournalQueueAckMarshaller** ()
- virtual **~JournalQueueAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.362.1 Detailed Description

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1846). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.362.2 Constructor & Destructor Documentation

**6.362.2.1** `activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::JournalQueueAckMarshaller()` [inline]

**6.362.2.2** `virtual activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::~~JournalQueueAckMarshaller()` [inline, virtual]

## 6.362.3 Member Function Documentation

**6.362.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.362.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.362.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.362.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.362.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.362.3.6** virtual void activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.362.3.7** virtual void activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/JournalQueueAckMarshaller.h

## 6.363 activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1850).

#include <src/main/activemq/wireformat/openwire/marshal/v1/JournalQueueAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller:

### Public Member Functions

- **JournalQueueAckMarshaller** ()
- virtual **~JournalQueueAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.363.1 Detailed Description

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1850). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.363.2 Constructor & Destructor Documentation

**6.363.2.1** `activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::JournalQueueAckMarshaller()` [inline]

**6.363.2.2** `virtual activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::~~JournalQueueAckMarshaller()` [inline, virtual]

## 6.363.3 Member Function Documentation

**6.363.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.363.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.363.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.363.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.363.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.363.3.6** virtual void activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.363.3.7** virtual void activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**JournalQueueAckMarshaller.h**

## 6.364 activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1854).

#include <src/main/activemq/wireformat/openwire/marshal/v5/JournalQueueAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller:

### Public Member Functions

- **JournalQueueAckMarshaller** ()
- virtual **~JournalQueueAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.364.1 Detailed Description

Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p.1854). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.364.2 Constructor & Destructor Documentation

**6.364.2.1** `activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::JournalQueueAckMarshaller()` [inline]

**6.364.2.2** `virtual activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::~~JournalQueueAckMarshaller()` [inline, virtual]

## 6.364.3 Member Function Documentation

**6.364.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.364.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.364.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.364.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.364.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.364.3.6** virtual void activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.364.3.7** virtual void activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/JournalQueueAckMarshaller.h

## 6.365 activemq::commands::JournalTopicAck Class Reference

#include <src/main/activemq/commands/JournalTopicAck.h> Inheritance diagram for activemq::commands::JournalTopicAck:

### Public Member Functions

- **JournalTopicAck** ()
- virtual **~JournalTopicAck** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **JournalTopicAck \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src) const  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const **Pointer**< **MessageId** > & **getMessageId** () const
- virtual **Pointer**< **MessageId** > & **getMessageId** ()
- virtual void **setMessageId** (const **Pointer**< **MessageId** > &messageId)
- virtual long long **getMessageSequenceId** () const
- virtual void **setMessageSequenceId** (long long messageSequenceId)
- virtual const std::string & **getSubscriptionName** () const
- virtual std::string & **getSubscriptionName** ()
- virtual void **setSubscriptionName** (const std::string &subscriptionName)
- virtual const std::string & **getClientId** () const
- virtual std::string & **getClientId** ()
- virtual void **setClientId** (const std::string &clientId)
- virtual const **Pointer**< **TransactionId** > & **getTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getTransactionId** ()
- virtual void **setTransactionId** (const **Pointer**< **TransactionId** > &transactionId)

### Static Public Attributes

- static const unsigned char **ID\_JOURNALTOPICACK** = 50

## Protected Member Functions

- **JournalTopicAck** (const **JournalTopicAck** &)
- **JournalTopicAck** & operator= (const **JournalTopicAck** &)

## Protected Attributes

- **Pointer**< **ActiveMQDestination** > **destination**
- **Pointer**< **MessageId** > **messageId**
- long long **messageSequenceId**
- std::string **subscriptionName**
- std::string **clientId**
- **Pointer**< **TransactionId** > **transactionId**

## 6.365.1 Constructor & Destructor Documentation

- 6.365.1.1** **activemq::commands::JournalTopicAck::JournalTopicAck** (const **JournalTopicAck** &) [inline, protected]
- 6.365.1.2** **activemq::commands::JournalTopicAck::JournalTopicAck** ()
- 6.365.1.3** **virtual activemq::commands::JournalTopicAck::~~JournalTopicAck** () [virtual]

## 6.365.2 Member Function Documentation

- 6.365.2.1** **virtual JournalTopicAck\* activemq::commands::JournalTopicAck::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

- 6.365.2.2** **virtual void activemq::commands::JournalTopicAck::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.365.2.3** `virtual bool activemq::commands::JournalTopicAck::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.365.2.4** `virtual std::string& activemq::commands::JournalTopicAck::getClientId ()` [virtual]

**6.365.2.5** `virtual const std::string& activemq::commands::JournalTopicAck::getClientId () const` [virtual]

**6.365.2.6** `virtual unsigned char activemq::commands::JournalTopicAck::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).



- 
- 6.365.2.7 virtual Pointer<ActiveMQDestination>& activemq::commands::JournalTopicAck::getDestination () [virtual]
- 6.365.2.8 virtual const Pointer<ActiveMQDestination>& activemq::commands::JournalTopicAck::getDestination () const [virtual]
- 6.365.2.9 virtual Pointer<MessageId>& activemq::commands::JournalTopicAck::getMessageId () [virtual]
- 6.365.2.10 virtual const Pointer<MessageId>& activemq::commands::JournalTopicAck::getMessageId () const [virtual]
- 6.365.2.11 virtual long long activemq::commands::JournalTopicAck::getMessageSequenceId () const [virtual]
- 6.365.2.12 virtual std::string& activemq::commands::JournalTopicAck::getSubscriptionName () [virtual]
- 6.365.2.13 virtual const std::string& activemq::commands::JournalTopicAck::getSubscriptionName () const [virtual]
- 6.365.2.14 virtual Pointer<TransactionId>& activemq::commands::JournalTopicAck::getTransactionId () [virtual]
- 6.365.2.15 virtual const Pointer<TransactionId>& activemq::commands::JournalTopicAck::getTransactionId () const [virtual]
- 6.365.2.16 JournalTopicAck& activemq::commands::JournalTopicAck::operator= (const JournalTopicAck &) [inline, protected]
- 6.365.2.17 virtual void activemq::commands::JournalTopicAck::setClientId (const std::string & *clientId*) [virtual]
- 6.365.2.18 virtual void activemq::commands::JournalTopicAck::setDestination (const Pointer< ActiveMQDestination > & *destination*) [virtual]
- 6.365.2.19 virtual void activemq::commands::JournalTopicAck::setMessageId (const Pointer< MessageId > & *messageId*) [virtual]
- 6.365.2.20 virtual void activemq::commands::JournalTopicAck::setMessageSequenceId (long long *messageSequenceId*) [virtual]
- 6.365.2.21 virtual void activemq::commands::JournalTopicAck::setSubscriptionName (const std::string & *subscriptionName*) [virtual]
- 
- 6.365.2.22 virtual void activemq::commands::JournalTopicAck::setTransactionId (const Pointer< TransactionId > & *transactionId*) [virtual]
- 6.365.2.23 virtual std::string activemq::commands::JournalTopicAck::toString () const [virtual]
-

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p. 718).

**6.365.3 Field Documentation**

- 6.365.3.1** `std::string activemq::commands::JournalTopicAck::clientId` [protected]
- 6.365.3.2** `Pointer<ActiveMQDestination> activemq::commands::JournalTopicAck::destination` [protected]
- 6.365.3.3** `const unsigned char activemq::commands::JournalTopicAck::ID_ - JOURNALTOPICACK = 50` [static]
- 6.365.3.4** `Pointer<MessageId> activemq::commands::JournalTopicAck::messageId` [protected]
- 6.365.3.5** `long long activemq::commands::JournalTopicAck::messageSequenceId` [protected]
- 6.365.3.6** `std::string activemq::commands::JournalTopicAck::subscriptionName` [protected]
- 6.365.3.7** `Pointer<TransactionId> activemq::commands::JournalTopicAck::transactionId` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/JournalTopicAck.h`

## 6.366 activemq::wireformat::openwire::marshal::v2::JournalTopicAckMa Class Reference

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1863).

#include <src/main/activemq/wireformat/openwire/marshal/v2/JournalTopicAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller:

### Public Member Functions

- **JournalTopicAckMarshaller** ()
- virtual **~JournalTopicAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.366.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1863). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.366.2 Constructor & Destructor Documentation

**6.366.2.1** `activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::JournalTopicAckMarshaller()` [inline]

**6.366.2.2** `virtual activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::~~JournalTopicAckMarshaller()` [inline, virtual]

## 6.366.3 Member Function Documentation

**6.366.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.366.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.366.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.366.3.4** virtual void **activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.366.3.5** virtual int **activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.366.3.6** virtual void activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.366.3.7** virtual void activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**JournalTopicAckMarshaller.h**

## 6.367 activemq::wireformat::openwire::marshal::v1::JournalTopicAckMa Class Reference

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1867).

#include <src/main/activemq/wireformat/openwire/marshal/v1/JournalTopicAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller:

### Public Member Functions

- **JournalTopicAckMarshaller** ()
- virtual **~JournalTopicAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.367.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1867). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.367.2 Constructor & Destructor Documentation

**6.367.2.1** `activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::JournalTopicAckMarshaller()` [inline]

**6.367.2.2** `virtual activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::~~JournalTopicAckMarshaller()` [inline, virtual]

## 6.367.3 Member Function Documentation

**6.367.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.367.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.367.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.367.3.4** virtual void **activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.367.3.5** virtual int **activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.367.3.6** virtual void activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.367.3.7** virtual void activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**JournalTopicAckMarshaller.h**

## 6.368 activemq::wireformat::openwire::marshal::v3::JournalTopicAckMa Class Reference

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1871).

#include <src/main/activemq/wireformat/openwire/marshal/v3/JournalTopicAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller:

### Public Member Functions

- **JournalTopicAckMarshaller** ()
- virtual **~JournalTopicAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.368.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1871). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.368.2 Constructor & Destructor Documentation

**6.368.2.1** `activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::JournalTopicAckMarshaller()` [inline]

**6.368.2.2** `virtual activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::~~JournalTopicAckMarshaller()` [inline, virtual]

## 6.368.3 Member Function Documentation

**6.368.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.368.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.368.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.368.3.4** virtual void **activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.368.3.5** virtual int **activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.368.3.6** virtual void activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.368.3.7** virtual void activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**JournalTopicAckMarshaller.h**

## 6.369 activemq::wireformat::openwire::marshal::v4::JournalTopicAckMa Class Reference

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1875).

#include <src/main/activemq/wireformat/openwire/marshal/v4/JournalTopicAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller:

### Public Member Functions

- **JournalTopicAckMarshaller** ()
- virtual **~JournalTopicAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.369.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1875). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.369.2 Constructor & Destructor Documentation

**6.369.2.1** `activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::JournalTopicAckMarshaller()` [inline]

**6.369.2.2** `virtual activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::~~JournalTopicAckMarshaller()` [inline, virtual]

## 6.369.3 Member Function Documentation

**6.369.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.369.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.369.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.369.3.4** virtual void **activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.369.3.5** virtual int **activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.369.3.6** virtual void activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.369.3.7** virtual void activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**JournalTopicAckMarshaller.h**

## 6.370 activemq::wireformat::openwire::marshal::v5::JournalTopicAckMa Class Reference

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1879).

#include <src/main/activemq/wireformat/openwire/marshal/v5/JournalTopicAckMarshaller.h>Inheritance  
diagram for activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller:

### Public Member Functions

- **JournalTopicAckMarshaller** ()
- virtual **~JournalTopicAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **com-  
mands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**,  
**utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **com-  
mands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **de-  
caf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **com-  
mands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**,  
**utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **com-  
mands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **com-  
mands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**)  
throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.370.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p.1879). NOTE!  
This file is auto generated - do not modify! if you need to make a change, please see the Java  
Classes in the activemq-openwire-generator module

## 6.370.2 Constructor & Destructor Documentation

**6.370.2.1** `activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::JournalTopicAckMarshaller()` [inline]

**6.370.2.2** `virtual activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::~~JournalTopicAckMarshaller()` [inline, virtual]

## 6.370.3 Member Function Documentation

**6.370.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.370.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.370.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.370.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.370.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.370.3.6** virtual void activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.370.3.7** virtual void activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**JournalTopicAckMarshaller.h**

## 6.371 activemq::commands::JournalTrace Class Reference

#include <src/main/activemq/commands/JournalTrace.h> Inheritance diagram for activemq::commands::JournalTrace:

### Public Member Functions

- **JournalTrace** ()
- virtual **~JournalTrace** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **JournalTrace \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getMessage** () const
- virtual std::string & **getMessage** ()
- virtual void **setMessage** (const std::string &message)

### Static Public Attributes

- static const unsigned char **ID\_JOURNALTRACE** = 53

### Protected Member Functions

- **JournalTrace** (const **JournalTrace** &)
- **JournalTrace** & **operator=** (const **JournalTrace** &)

### Protected Attributes

- std::string **message**

### 6.371.1 Constructor & Destructor Documentation

**6.371.1.1** `activemq::commands::JournalTrace::JournalTrace (const JournalTrace &) [inline, protected]`

**6.371.1.2** `activemq::commands::JournalTrace::JournalTrace ()`

**6.371.1.3** `virtual activemq::commands::JournalTrace::~~JournalTrace () [virtual]`

### 6.371.2 Member Function Documentation

**6.371.2.1** `virtual JournalTrace* activemq::commands::JournalTrace::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.371.2.2** `virtual void activemq::commands::JournalTrace::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

**6.371.2.3** `virtual bool activemq::commands::JournalTrace::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

**6.371.2.4** `virtual unsigned char activemq::commands::JournalTrace::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.



**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

- 6.371.2.5** `virtual std::string& activemq::commands::JournalTrace::getMessage ()`  
[virtual]
- 6.371.2.6** `virtual const std::string& activemq::commands::JournalTrace::getMessage () const` [virtual]
- 6.371.2.7** `JournalTrace& activemq::commands::JournalTrace::operator= (const JournalTrace &)` [inline, protected]
- 6.371.2.8** `virtual void activemq::commands::JournalTrace::setMessage (const std::string & message)` [virtual]
- 6.371.2.9** `virtual std::string activemq::commands::JournalTrace::toString () const`  
[virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSet** (p. 718).

**6.371.3 Field Documentation**

- 6.371.3.1** `const unsigned char activemq::commands::JournalTrace::ID_ - JOURNALTRACE = 53` [static]
- 6.371.3.2** `std::string activemq::commands::JournalTrace::message` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/JournalTrace.h`

## 6.372 activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1886).

#include <src/main/activemq/wireformat/openwire/marshal/v2/JournalTraceMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller:

### Public Member Functions

- **JournalTraceMarshaller** ()
- virtual **~JournalTraceMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.372.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1886). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.372.2 Constructor & Destructor Documentation

**6.372.2.1** `activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::JournalTraceMarshaller()` [inline]

**6.372.2.2** `virtual activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::~~JournalTraceMarshaller()` [inline, virtual]

## 6.372.3 Member Function Documentation

**6.372.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.372.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.372.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.372.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.372.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.372.3.6** virtual void activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.372.3.7** virtual void activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**JournalTraceMarshaller.h**

## 6.373 activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1890).

#include <src/main/activemq/wireformat/openwire/marshal/v4/JournalTraceMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller:

### Public Member Functions

- **JournalTraceMarshaller** ()
- virtual **~JournalTraceMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.373.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1890). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.373.2 Constructor & Destructor Documentation

**6.373.2.1** `activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::JournalTraceMarshaller()` [inline]

**6.373.2.2** `virtual activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::~~JournalTraceMarshaller()` [inline, virtual]

## 6.373.3 Member Function Documentation

**6.373.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.373.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.373.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.373.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.373.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.373.3.6** virtual void activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.373.3.7** virtual void activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**JournalTraceMarshaller.h**

## 6.374 activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1894).

#include <src/main/activemq/wireformat/openwire/marshal/v3/JournalTraceMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller:

### Public Member Functions

- **JournalTraceMarshaller** ()
- virtual **~JournalTraceMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.374.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1894). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.374.2 Constructor & Destructor Documentation

**6.374.2.1** `activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::JournalTraceMarshaller()` [inline]

**6.374.2.2** `virtual activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::~~JournalTraceMarshaller()` [inline, virtual]

## 6.374.3 Member Function Documentation

**6.374.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.374.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.374.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.374.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.374.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.374.3.6** virtual void activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.374.3.7** virtual void activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**JournalTraceMarshaller.h**

## 6.375 activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1898).

#include <src/main/activemq/wireformat/openwire/marshal/v1/JournalTraceMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller:

### Public Member Functions

- **JournalTraceMarshaller** ()
- virtual **~JournalTraceMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.375.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1898). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.375.2 Constructor & Destructor Documentation

**6.375.2.1** `activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::JournalTraceMarshaller()` [inline]

**6.375.2.2** `virtual activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::~~JournalTraceMarshaller()` [inline, virtual]

## 6.375.3 Member Function Documentation

**6.375.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.375.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.375.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.375.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.375.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.375.3.6** virtual void activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.375.3.7** virtual void activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**JournalTraceMarshaller.h**

## 6.376 activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1902).

#include <src/main/activemq/wireformat/openwire/marshal/v5/JournalTraceMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller:

### Public Member Functions

- **JournalTraceMarshaller** ()
- virtual **~JournalTraceMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.376.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1902). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.376.2 Constructor & Destructor Documentation

**6.376.2.1** `activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::JournalTraceMarshaller()` [inline]

**6.376.2.2** `virtual activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::~~JournalTraceMarshaller()` [inline, virtual]

## 6.376.3 Member Function Documentation

**6.376.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.376.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.376.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.376.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.376.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.376.3.6** virtual void activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.376.3.7** virtual void activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**JournalTraceMarshaller.h**

## 6.377 activemq::commands::JournalTransaction Class Reference

#include <src/main/activemq/commands/JournalTransaction.h> Inheritance diagram for activemq::commands::JournalTransaction:

### Public Member Functions

- **JournalTransaction** ()
- virtual **~JournalTransaction** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **JournalTransaction \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **TransactionId** > & **getTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getTransactionId** ()
- virtual void **setTransactionId** (const **Pointer**< **TransactionId** > &transactionId)
- virtual unsigned char **getType** () const
- virtual void **setType** (unsigned char type)
- virtual bool **getWasPrepared** () const
- virtual void **setWasPrepared** (bool wasPrepared)

### Static Public Attributes

- static const unsigned char **ID\_JOURNALTRANSACTION** = 54

### Protected Member Functions

- **JournalTransaction** (const **JournalTransaction** &)
- **JournalTransaction** & **operator=** (const **JournalTransaction** &)

## Protected Attributes

- **Pointer**< TransactionId > **transactionId**
- unsigned char **type**
- bool **wasPrepared**

## 6.377.1 Constructor & Destructor Documentation

**6.377.1.1** `activemq::commands::JournalTransaction::JournalTransaction (const JournalTransaction &) [inline, protected]`

**6.377.1.2** `activemq::commands::JournalTransaction::JournalTransaction ()`

**6.377.1.3** `virtual activemq::commands::JournalTransaction::~~JournalTransaction () [virtual]`

## 6.377.2 Member Function Documentation

**6.377.2.1** `virtual JournalTransaction* activemq::commands::JournalTransaction::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.377.2.2** `virtual void activemq::commands::JournalTransaction::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

**6.377.2.3** `virtual bool activemq::commands::JournalTransaction::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

**6.377.2.4** `virtual unsigned char activemq::commands::JournalTransaction::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

**6.377.2.5** `virtual Pointer<TransactionId>& activemq::commands::JournalTransaction::getTransactionId () [virtual]`

**6.377.2.6** `virtual const Pointer<TransactionId>& activemq::commands::JournalTransaction::getTransactionId () const [virtual]`

**6.377.2.7** `virtual unsigned char activemq::commands::JournalTransaction::getType () const [virtual]`

**6.377.2.8** `virtual bool activemq::commands::JournalTransaction::getWasPrepared () const [virtual]`

**6.377.2.9** `JournalTransaction& activemq::commands::JournalTransaction::operator= (const JournalTransaction &) [inline, protected]`

**6.377.2.10** `virtual void activemq::commands::JournalTransaction::setTransactionId (const Pointer< TransactionId > & transactionId) [virtual]`

**6.377.2.11** `virtual void activemq::commands::JournalTransaction::setType (unsigned char type) [virtual]`

**6.377.2.12** `virtual void activemq::commands::JournalTransaction::setWasPrepared (bool wasPrepared) [virtual]`

**6.377.2.13** `virtual std::string activemq::commands::JournalTransaction::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataStructure** (p. 718).



### 6.377.3 Field Documentation

- 6.377.3.1 `const unsigned char activemq::commands::JournalTransaction::ID_ - JOURNALTRANSACTION = 54` [static]
- 6.377.3.2 `Pointer<TransactionId> activemq::commands::JournalTransaction::transactionId` [protected]
- 6.377.3.3 `unsigned char activemq::commands::JournalTransaction::type` [protected]
- 6.377.3.4 `bool activemq::commands::JournalTransaction::wasPrepared` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/JournalTransaction.h`

## 6.378 activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1910).

#include <src/main/activemq/wireformat/openwire/marshal/v2/JournalTransactionMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller:

### Public Member Functions

- **JournalTransactionMarshaller** ()
- virtual **~JournalTransactionMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.378.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1910). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.378.2 Constructor & Destructor Documentation

**6.378.2.1** `activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::JournalTrans  
( ) [inline]`

**6.378.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::~~JournalTra  
( ) [inline, virtual]`

## 6.378.3 Member Function Documentation

**6.378.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.378.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.378.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.378.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.378.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.378.3.6** virtual void activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.378.3.7** virtual void activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**JournalTransactionMarshaller.h**

## 6.379 activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1914).

#include <src/main/activemq/wireformat/openwire/marshal/v3/JournalTransactionMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller:

### Public Member Functions

- **JournalTransactionMarshaller** ()
- virtual **~JournalTransactionMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.379.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1914). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.379.2 Constructor & Destructor Documentation

**6.379.2.1** `activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::JournalTrans  
( ) [inline]`

**6.379.2.2** `virtual  
activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::~~JournalTra  
( ) [inline, virtual]`

## 6.379.3 Member Function Documentation

**6.379.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.379.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.379.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.379.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.379.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.379.3.6** virtual void activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.379.3.7** virtual void activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**JournalTransactionMarshaller.h**

## 6.380 activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1918).

#include <src/main/activemq/wireformat/openwire/marshal/v4/JournalTransactionMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller:

### Public Member Functions

- **JournalTransactionMarshaller** ()
- virtual **~JournalTransactionMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.380.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1918). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.380.2 Constructor & Destructor Documentation

**6.380.2.1** `activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::JournalTrans  
( ) [inline]`

**6.380.2.2** `virtual  
activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::~~JournalTra  
( ) [inline, virtual]`

## 6.380.3 Member Function Documentation

**6.380.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.380.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.380.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.380.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.380.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.380.3.6** virtual void activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.380.3.7** virtual void activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**JournalTransactionMarshaller.h**

## 6.381 activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1922).

#include <src/main/activemq/wireformat/openwire/marshal/v1/JournalTransactionMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller:

### Public Member Functions

- **JournalTransactionMarshaller** ()
- virtual **~JournalTransactionMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.381.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1922). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.381.2 Constructor & Destructor Documentation

**6.381.2.1** `activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::JournalTrans  
( ) [inline]`

**6.381.2.2** `virtual  
activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::~~JournalTra  
( ) [inline, virtual]`

## 6.381.3 Member Function Documentation

**6.381.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.381.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.381.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.381.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.381.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.381.3.6** virtual void activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.381.3.7** virtual void activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**JournalTransactionMarshaller.h**

## 6.382 activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller Class Reference

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1926).

#include <src/main/activemq/wireformat/openwire/marshal/v5/JournalTransactionMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller:

### Public Member Functions

- **JournalTransactionMarshaller** ()
- virtual **~JournalTransactionMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.382.1 Detailed Description

Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p.1926). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.382.2 Constructor & Destructor Documentation

**6.382.2.1** `activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::JournalTrans  
( ) [inline]`

**6.382.2.2** `virtual  
activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::~~JournalTra  
( ) [inline, virtual]`

## 6.382.3 Member Function Documentation

**6.382.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.382.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::getDataStructu  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.382.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::looseMarshal  
( OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.382.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.382.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.382.3.6** virtual void activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.382.3.7** virtual void activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**JournalTransactionMarshaller.h**

## 6.383 activemq::commands::KeepAliveInfo Class Reference

#include <src/main/activemq/commands/KeepAliveInfo.h> Inheritance diagram for activemq::commands::KeepAliveInfo:

### Public Member Functions

- **KeepAliveInfo** ()
- virtual **~KeepAliveInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **KeepAliveInfo** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isKeepAliveInfo** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID \_KEEPALIVEINFO** = 10

### Protected Member Functions

- **KeepAliveInfo** (const **KeepAliveInfo** &)
- **KeepAliveInfo** & **operator=** (const **KeepAliveInfo** &)

## 6.383.1 Constructor & Destructor Documentation

**6.383.1.1** `activemq::commands::KeepAliveInfo::KeepAliveInfo (const KeepAliveInfo &) [inline, protected]`

**6.383.1.2** `activemq::commands::KeepAliveInfo::KeepAliveInfo ()`

**6.383.1.3** `virtual activemq::commands::KeepAliveInfo::~~KeepAliveInfo () [virtual]`

## 6.383.2 Member Function Documentation

**6.383.2.1** `virtual KeepAliveInfo* activemq::commands::KeepAliveInfo::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.383.2.2** `virtual void activemq::commands::KeepAliveInfo::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.383.2.3** `virtual bool activemq::commands::KeepAliveInfo::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.383.2.4** `virtual unsigned char activemq::commands::KeepAliveInfo::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.383.2.5** **virtual bool activemq::commands::KeepAliveInfo::isKeepAliveInfo ()**  
**const** [inline, virtual]

**Returns:**

an answer of true to the **isKeepAliveInfo()** (p. 1932) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 653).

**6.383.2.6** **KeepAliveInfo& activemq::commands::KeepAliveInfo::operator= (const**  
**KeepAliveInfo &)** [inline, protected]

**6.383.2.7** **virtual std::string activemq::commands::KeepAliveInfo::toString () const**  
**[virtual]**

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.383.2.8** **virtual Pointer<Command> activemq::commands::KeepAliveInfo::visit**  
**(activemq::state::CommandVisitor \* visitor) throw (**  
**exceptions::ActiveMQException )** [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.383.3 Field Documentation**

**6.383.3.1** **const unsigned char activemq::commands::KeepAliveInfo::ID \_-**  
**KEEPALIVEINFO = 10** [static]

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**KeepAliveInfo.h**



## 6.384 activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1933).

#include <src/main/activemq/wireformat/openwire/marshal/v2/KeepAliveInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller:

### Public Member Functions

- **KeepAliveInfoMarshaller** ()
- virtual **~KeepAliveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.384.1 Detailed Description

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1933). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.384.2 Constructor & Destructor Documentation

**6.384.2.1** `activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::KeepAliveInfoMar  
( ) [inline]`

**6.384.2.2** `virtual  
activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::~~KeepAliveInfoM  
( ) [inline, virtual]`

## 6.384.3 Member Function Documentation

**6.384.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.384.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.384.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.384.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.384.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.384.3.6** virtual void activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.384.3.7** virtual void activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/KeepAliveInfoMarshaller.h

## 6.385 activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1937).

#include <src/main/activemq/wireformat/openwire/marshal/v5/KeepAliveInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller:

### Public Member Functions

- **KeepAliveInfoMarshaller** ()
- virtual **~KeepAliveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.385.1 Detailed Description

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1937). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.385.2 Constructor & Destructor Documentation

**6.385.2.1** `activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::KeepAliveInfoMar  
( ) [inline]`

**6.385.2.2** `virtual  
activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::~~KeepAliveInfoM  
( ) [inline, virtual]`

## 6.385.3 Member Function Documentation

**6.385.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.385.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.385.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.385.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.385.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.385.3.6** virtual void activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.385.3.7** virtual void activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/KeepAliveInfoMarshaller.h



## 6.386 activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1941).

#include <src/main/activemq/wireformat/openwire/marshal/v3/KeepAliveInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller:

### Public Member Functions

- **KeepAliveInfoMarshaller** ()
- virtual **~KeepAliveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.386.1 Detailed Description

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1941). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.386.2 Constructor & Destructor Documentation

**6.386.2.1** `activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::KeepAliveInfoMar  
( ) [inline]`

**6.386.2.2** `virtual  
activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::~~KeepAliveInfoM  
( ) [inline, virtual]`

## 6.386.3 Member Function Documentation

**6.386.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.386.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.386.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.386.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.386.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.386.3.6** virtual void activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.386.3.7** virtual void activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/KeepAliveInfoMarshaller.h

## 6.387 activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1945).

#include <src/main/activemq/wireformat/openwire/marshal/v4/KeepAliveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller:

### Public Member Functions

- **KeepAliveInfoMarshaller** ()
- virtual **~KeepAliveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.387.1 Detailed Description

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1945). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.387.2 Constructor & Destructor Documentation

**6.387.2.1** `activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::KeepAliveInfoMar  
( ) [inline]`

**6.387.2.2** `virtual  
activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::~~KeepAliveInfoM  
( ) [inline, virtual]`

## 6.387.3 Member Function Documentation

**6.387.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.387.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.387.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::looseMarshal  
(OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.387.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.387.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.387.3.6** virtual void activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.387.3.7** virtual void activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/KeepAliveInfoMarshaller.h



## 6.388 activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1949).

#include <src/main/activemq/wireformat/openwire/marshal/v1/KeepAliveInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller:

### Public Member Functions

- **KeepAliveInfoMarshaller** ()
- virtual **~KeepAliveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.388.1 Detailed Description

Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p.1949). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.388.2 Constructor & Destructor Documentation

**6.388.2.1** `activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::KeepAliveInfoMar  
( ) [inline]`

**6.388.2.2** `virtual  
activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::~~KeepAliveInfoM  
( ) [inline, virtual]`

## 6.388.3 Member Function Documentation

**6.388.3.1** `virtual commands::DataStructure* ac-  
tivemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::createObject  
( ) const [virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.388.3.2** `virtual unsigned char ac-  
tivemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::getDataStructureTy  
( ) const [virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.388.3.3** `virtual void ac-  
tivemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::looseMarshal  
( OpenWireFormat * wireFormat, commands::DataStructure *  
dataStructure, decaf::io::DataOutputStream * dataOut) throw (  
decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.388.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.388.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.388.3.6** virtual void activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.388.3.7** virtual void activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/KeepAliveInfoMarshaller.h

## 6.389 decaf::security::Key Class Reference

The **Key** (p. 1953) interface is the top-level interface for all keys.

#include <src/main/decaf/security/Key.h> Inheritance diagram for decaf::security::Key:

### Public Member Functions

- virtual **~Key** ()
- virtual std::string **getAlgorithm** () const =0  
*Returns the standard algorithm name for this key.*
- virtual void **getEncoded** (std::vector< unsigned char > &output) const =0  
*Provides the key in its primary encoding format, or nothing if this key does not support encoding.*
- virtual std::string **getFormat** () const =0  
*Returns the name of the primary encoding format of this key, or an empty string if this key does not support encoding.*

### 6.389.1 Detailed Description

The **Key** (p. 1953) interface is the top-level interface for all keys. It defines the functionality shared by all key objects. All keys have three characteristics:

An Algorithm

This is the key algorithm for that key. The key algorithm is usually an encryption or asymmetric operation algorithm (such as DSA or RSA), which will work with those algorithms and with related algorithms (such as MD5 with RSA, SHA-1 with RSA, Raw DSA, etc.) The name of the algorithm of a key is obtained using the getAlgorithm method.

An Encoded Form

This is an external encoded form for the key used when a standard representation of the key is needed outside the application, as when transmitting the key to some other party. The key is encoded according to a standard format (such as X.509 SubjectPublicKeyInfo or PKCS#8), and is returned using the getEncoded method. Note: The syntax of the ASN.1 type SubjectPublicKeyInfo is defined as follows:

```
SubjectPublicKeyInfo ::= SEQUENCE {
    algorithm AlgorithmIdentifier,
    subjectPublicKey BIT STRING }
AlgorithmIdentifier ::= SEQUENCE {
    algorithm OBJECT IDENTIFIER,
    parameters ANY DEFINED BY algorithm OPTIONAL }
```

For more information, see RFC 2459: Internet X.509 Public **Key** (p. 1953) Infrastructure Certificate and CRL Profile.

A Format

This is the name of the format of the encoded key. It is returned by the `getFormat` method.

## 6.389.2 Constructor & Destructor Documentation

**6.389.2.1** `virtual decaf::security::Key::~~Key () [inline, virtual]`

## 6.389.3 Member Function Documentation

**6.389.3.1** `virtual std::string decaf::security::Key::getAlgorithm () const [pure virtual]`

Returns the standard algorithm name for this key. For example, "DSA" would indicate that this key is a DSA key.

### Returns:

the name of the algorithm associated with this key.

**6.389.3.2** `virtual void decaf::security::Key::getEncoded (std::vector< unsigned char > & output) const [pure virtual]`

Provides the key in its primary encoding format, or nothing if this key does not support encoding.

### Parameters:

*output* Receives the encoded key, or nothing if the key does not support encoding.

**6.389.3.3** `virtual std::string decaf::security::Key::getFormat () const [pure virtual]`

Returns the name of the primary encoding format of this key, or an empty string if this key does not support encoding. The primary encoding format is named in terms of the appropriate ASN.1 data format, if an ASN.1 specification for this key exists. For example, the name of the ASN.1 data format for public keys is `SubjectPublicKeyInfo`, as defined by the X.509 standard; in this case, the returned format is "X.509". Similarly, the name of the ASN.1 data format for private keys is `PrivateKeyInfo`, as defined by the PKCS #8 standard; in this case, the returned format is "PKCS#8".

### Returns:

the primary encoding format of the key.

The documentation for this class was generated from the following file:

- `src/main/decaf/security/Key.h`

## 6.390 decaf::security::KeyException Class Reference

#include <src/main/decaf/security/KeyException.h> Inheritance diagram for decaf::security::KeyException:

### Public Member Functions

- **KeyException** () throw ()  
*Default Constructor.*
- **KeyException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **KeyException** (const **KeyException** &ex) throw ()  
*Copy Constructor.*
- **KeyException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **KeyException** (const std::exception \*cause) throw ()  
*Constructor.*
- **KeyException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **KeyException** \* clone () const  
*Clones this exception.*
- virtual ~**KeyException** () throw ()

### 6.390.1 Constructor & Destructor Documentation

#### 6.390.1.1 decaf::security::KeyException::KeyException () throw () [inline]

Default Constructor.

#### 6.390.1.2 decaf::security::KeyException::KeyException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.390.1.3 decaf::security::KeyException::KeyException (const KeyException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.390.1.4 decaf::security::KeyException::KeyException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.390.1.5 decaf::security::KeyException::KeyException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.390.1.6 decaf::security::KeyException::KeyException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message



**6.390.1.7** `virtual decaf::security::KeyException::~~KeyException () throw ()`  
[inline, virtual]

## 6.390.2 Member Function Documentation

**6.390.2.1** `virtual KeyException* decaf::security::KeyException::clone () const`  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

A deep copy of this exception.

Reimplemented from **decaf::security::GeneralSecurityException** (p. 1708).

Reimplemented in **decaf::security::InvalidKeyException** (p. 1812).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/KeyException.h`

## 6.391 activemq::commands::LastPartialCommand Class Reference

#include <src/main/activemq/commands/LastPartialCommand.h> Inheritance diagram for activemq::commands::LastPartialCommand:

### Public Member Functions

- **LastPartialCommand** ()
- virtual **~LastPartialCommand** ()
- virtual unsigned char **getDataStructureType** () const

*Get the unique identifier that this object and its own Marshaler share.*

- virtual **LastPartialCommand \* cloneDataStructure** () const

*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*

- virtual void **copyDataStructure** (const **DataStructure** \*src)

*Copy the contents of the passed object into this object's members, overwriting any existing data.*

- virtual std::string **toString** () const

*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*

- virtual bool **equals** (const **DataStructure** \*value) const

*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*

### Static Public Attributes

- static const unsigned char **ID\_LASTPARTIALCOMMAND** = 61

### Protected Member Functions

- **LastPartialCommand** (const **LastPartialCommand** &)
- **LastPartialCommand** & **operator=** (const **LastPartialCommand** &)

## 6.391.1 Constructor & Destructor Documentation

**6.391.1.1** `activemq::commands::LastPartialCommand::LastPartialCommand (const LastPartialCommand &) [inline, protected]`

**6.391.1.2** `activemq::commands::LastPartialCommand::LastPartialCommand ()`

**6.391.1.3** `virtual  
activemq::commands::LastPartialCommand::~~LastPartialCommand ()  
[virtual]`

## 6.391.2 Member Function Documentation

**6.391.2.1** `virtual LastPartialCommand* ac-  
tivemq::commands::LastPartialCommand::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Reimplemented from `activemq::commands::PartialCommand` (p. 2474).

**6.391.2.2** `virtual void ac-  
tivemq::commands::LastPartialCommand::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::PartialCommand` (p. 2474).

**6.391.2.3** `virtual bool activemq::commands::LastPartialCommand::equals (const  
DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::PartialCommand` (p. 2474).

**6.391.2.4** `virtual unsigned char activemq::commands::LastPartialCommand::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Reimplemented from **activemq::commands::PartialCommand** (p. 2475).

**6.391.2.5** `LastPartialCommand& activemq::commands::LastPartialCommand::operator= (const LastPartialCommand &) [inline, protected]`

**6.391.2.6** `virtual std::string activemq::commands::LastPartialCommand::toString () const [virtual]`

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::PartialCommand** (p. 2475).

### 6.391.3 Field Documentation

**6.391.3.1** `const unsigned char activemq::commands::LastPartialCommand::ID_ - LASTPARTIALCOMMAND = 61 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/LastPartialCommand.h`

## 6.392 activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1961).

#include <src/main/activemq/wireformat/openwire/marshal/v2/LastPartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller:

### Public Member Functions

- **LastPartialCommandMarshaller** ()
- virtual **~LastPartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.392.1 Detailed Description

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1961).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.392.2 Constructor & Destructor Documentation

**6.392.2.1** `activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::LastPartialCommandMarshaller()` [inline]

**6.392.2.2** `virtual activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::~LastPartialCommandMarshaller()` [inline, virtual]

## 6.392.3 Member Function Documentation

**6.392.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller` (p. 2478).

**6.392.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller` (p. 2478).

**6.392.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller` (p. 2478).

**6.392.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller` (p. 2479).

**6.392.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller` (p. 2479).

**6.392.3.6** virtual void activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller** (p. 2480).

**6.392.3.7** virtual void activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller** (p. 2480).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/LastPartialCommandMarshaller.h



## 6.393 activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1965).

#include <src/main/activemq/wireformat/openwire/marshal/v1/LastPartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller:

### Public Member Functions

- **LastPartialCommandMarshaller** ()
- virtual **~LastPartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.393.1 Detailed Description

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1965).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.393.2 Constructor & Destructor Documentation

**6.393.2.1** `activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::LastPartialCommandMarshaller()` [inline]

**6.393.2.2** `virtual activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::~LastPartialCommandMarshaller()` [inline, virtual]

## 6.393.3 Member Function Documentation

**6.393.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller` (p. 2490).

**6.393.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller` (p. 2490).

**6.393.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller` (p. 2490).

**6.393.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller` (p. 2491).

**6.393.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller` (p. 2491).

**6.393.3.6** virtual void activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller** (p. 2492).

**6.393.3.7** virtual void activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller** (p. 2492).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**LastPartialCommandMarshaller.h**

## 6.394 activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1969).

#include <src/main/activemq/wireformat/openwire/marshal/v3/LastPartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller:

### Public Member Functions

- **LastPartialCommandMarshaller** ()
- virtual **~LastPartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.394.1 Detailed Description

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1969).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.394.2 Constructor & Destructor Documentation

**6.394.2.1** `activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::LastPartialCommandMarshaller()` [inline]

**6.394.2.2** `virtual activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::~LastPartialCommandMarshaller()` [inline, virtual]

## 6.394.3 Member Function Documentation

**6.394.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2482).

**6.394.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2482).

**6.394.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2482).

**6.394.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2483).

**6.394.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller` (p. 2483).

**6.394.3.6** virtual void activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller** (p. 2484).

**6.394.3.7** virtual void activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller** (p. 2484).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**LastPartialCommandMarshaller.h**



## 6.395 activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1973).

#include <src/main/activemq/wireformat/openwire/marshal/v4/LastPartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller:

### Public Member Functions

- **LastPartialCommandMarshaller** ()
- virtual **~LastPartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.395.1 Detailed Description

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1973).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.395.2 Constructor & Destructor Documentation

**6.395.2.1** `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::LastPartialCommandMarshaller()` [inline]

**6.395.2.2** `virtual activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::~LastPartialCommandMarshaller()` [inline, virtual]

## 6.395.3 Member Function Documentation

**6.395.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2486).

**6.395.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2486).

**6.395.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2486).

**6.395.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2487).

**6.395.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller` (p. 2487).

**6.395.3.6** virtual void activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller** (p. 2488).

**6.395.3.7** virtual void activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller** (p. 2488).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**LastPartialCommandMarshaller.h**

## 6.396 activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1977).

#include <src/main/activemq/wireformat/openwire/marshal/v5/LastPartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller:

### Public Member Functions

- **LastPartialCommandMarshaller** ()
- virtual **~LastPartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.396.1 Detailed Description

Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p.1977).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.396.2 Constructor & Destructor Documentation

**6.396.2.1** `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::LastPartialCommandMarshaller()` [inline]

**6.396.2.2** `virtual activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::~LastPartialCommandMarshaller()` [inline, virtual]

## 6.396.3 Member Function Documentation

**6.396.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2494).

**6.396.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Reimplemented from `activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller` (p. 2494).

**6.396.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller** (p. 2494).

**6.396.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller** (p. 2495).

**6.396.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller** (p. 2495).

**6.396.3.6** virtual void activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller** (p. 2496).

**6.396.3.7** virtual void activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller** (p. 2496).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**LastPartialCommandMarshaller.h**



## 6.397 decaf::util::comparators::Less< E > Class Template Reference

Simple **Less** (p. 1981) **Comparator** (p. 1086) that compares to elements to determine if the first is less than the second.

#include <src/main/decaf/util/comparators/Less.h> Inheritance diagram for decaf::util::comparators::Less< E >:

### Public Member Functions

- **Less** ()
- virtual **~Less** ()
- virtual bool **operator**() (const E &left, const E &right) const  
*Implementation of the Binary function interface as a means of allowing a **Comparator** (p. 1086) to be passed to an STL **Map** (p. 2094) for use as the sorting criteria.*
- virtual int **compare** (const E &o1, const E &o2) const  
*Compares its two arguments for order.*

### 6.397.1 Detailed Description

template<typename E> class decaf::util::comparators::Less< E >

Simple **Less** (p. 1981) **Comparator** (p. 1086) that compares to elements to determine if the first is less than the second. This can be used in **Collection** (p. 1054) classes to sort elements according to their natural ordering. By design the Comparator's compare function return more information about comparison than the STL binary function's boolean compare operator. In this case the compare method will return

Since:

1.0

### 6.397.2 Constructor & Destructor Documentation

6.397.2.1 template<typename E > decaf::util::comparators::Less< E >::Less ()  
[inline]

6.397.2.2 template<typename E > virtual decaf::util::comparators::Less< E >::~~Less () [inline, virtual]

### 6.397.3 Member Function Documentation

6.397.3.1 template<typename E > virtual int decaf::util::comparators::Less< E >::compare (const E & o1, const E & o2) const [inline, virtual]

Compares its two arguments for order. Returns a negative integer, zero, or a positive integer as the first argument is less than, equal to, or greater than the second.

The implementor must ensure that `sgn( compare(x, y)) == -sgn(compare(y, x) )` for all `x` and `y`. (This implies that `compare(x, y)` must throw an exception if and only if `compare(y, x)` throws an exception.)

The implementor must also ensure that the relation is transitive: `((compare(x, y)>0) && (compare(y, z)>0))` implies `compare(x, z)>0`.

Finally, the implementer must ensure that `compare(x, y)==0` implies that `sgn(compare(x, z))==sgn(compare(y, z))` for all `z`.

It is generally the case, but not strictly required that `(compare(x, y)==0) == ( x == y )`. Generally speaking, any comparator that violates this condition should clearly indicate this fact. The recommended language is "Note: this comparator imposes orderings that are inconsistent with equals."

#### Parameters:

- o1* - the first object to be compared
- o2* - the second object to be compared

#### Returns:

a negative integer, zero, or a positive integer as the first argument is less than, equal to, or greater than the second.

Implements **decaf::util::Comparator< E >** (p.1086).

**6.397.3.2** `template<typename E > virtual bool decaf::util::comparators::Less< E >::operator() (const E & left, const E & right) const` [inline, virtual]

Implementation of the Binary function interface as a means of allowing a **Comparator** (p.1086) to be passed to an STL **Map** (p.2094) for use as the sorting criteria.

#### Parameters:

- left* - the Left hand side operand.
- right* - the Right hand side operand.

#### Returns:

true if the vale of left is less than the value of right.

Implements **decaf::util::Comparator< E >** (p.1087).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/comparators/Less.h`

## 6.398 std::less< decaf::lang::Pointer< T > > Struct Template Reference

An override of the less function object so that the Pointer objects can be stored in STL Maps, etc.

```
#include <src/main/decaf/lang/Pointer.h>Inheritance    diagram    for    std::less<
decaf::lang::Pointer< T > >:
```

### Public Member Functions

- bool **operator()** (const decaf::lang::Pointer< T > &left, const decaf::lang::Pointer< T > &right) const

#### 6.398.1 Detailed Description

```
template<typename T> struct std::less< decaf::lang::Pointer< T > >
```

An override of the less function object so that the Pointer objects can be stored in STL Maps, etc.

#### 6.398.2 Member Function Documentation

**6.398.2.1** template<typename T > bool std::less< decaf::lang::Pointer< T > >::operator() (const decaf::lang::Pointer< T > & *left*, const decaf::lang::Pointer< T > & *right*) const [inline]

References decaf::lang::Pointer< T, REFCOUNTER >::get().

The documentation for this struct was generated from the following file:

- src/main/decaf/lang/**Pointer.h**

## 6.399 decaf::util::List< E > Class Template Reference

An ordered collection (also known as a sequence).

#include <src/main/decaf/util/List.h> Inheritance diagram for decaf::util::List< E >:

### Public Member Functions

- virtual **~List** ()
- virtual **ListIterator**< E > \* **listIterator** ()=0
- virtual **ListIterator**< E > \* **listIterator** () const =0
- virtual **ListIterator**< E > \* **listIterator** (std::size\_t index)=0 throw ( decaf::lang::exceptions::IndexOutOfBoundsException )
- virtual **ListIterator**< E > \* **listIterator** (std::size\_t index) const =0 throw ( decaf::lang::exceptions::IndexOutOfBoundsException )
- virtual std::size\_t **indexOf** (const E &value)=0 throw ( decaf::lang::exceptions::NoSuchElementException )  
*Returns the index of the first occurrence of the specified element in this list, or -1 if this list does not contain the element.*
- virtual std::size\_t **lastIndexOf** (const E &value)=0 throw ( decaf::lang::exceptions::NoSuchElementException )  
*Returns the index of the last occurrence of the specified element in this list, or -1 if this list does not contain the element.*
- virtual E **get** (std::size\_t index) const =0 throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Gets the element contained at position passed.*
- virtual E **set** (std::size\_t index, const E &element)=0 throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Replaces the element at the specified position in this list with the specified element.*
- virtual void **add** (std::size\_t index, const E &element)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException )  
*Inserts the specified element at the specified position in this list.*
- virtual bool **addAll** (std::size\_t index, const **Collection**< E > &source)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException )  
*Inserts all of the elements in the specified collection into this list at the specified position (optional operation).*
- virtual E **remove** (std::size\_t index)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException )  
*Removes the element at the specified position in this list.*

## 6.399.1 Detailed Description

**template<typename E> class decaf::util::List< E >**

An ordered collection (also known as a sequence). The user of this interface has precise control over where in the list each element is inserted. The user can access elements by their integer index (position in the list), and search for elements in the list.

Unlike sets, lists typically allow duplicate elements. More formally, lists typically allow pairs of elements *e1* and *e2* such that *e1.equals(e2)*, and they typically allow multiple null elements if they allow null elements at all. It is not inconceivable that someone might wish to implement a list that prohibits duplicates, by throwing runtime exceptions when the user attempts to insert them, but we expect this usage to be rare.

## 6.399.2 Constructor & Destructor Documentation

**6.399.2.1** **template<typename E> virtual decaf::util::List< E >::~~List ()** [inline, virtual]

## 6.399.3 Member Function Documentation

**6.399.3.1** **template<typename E> virtual void decaf::util::List< E >::add (std::size\_t *index*, const E & *element*) throw (decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException)** [pure virtual]

Inserts the specified element at the specified position in this list. Shifts the element currently at that position (if any) and any subsequent elements to the right (adds one to their indices).

### Parameters:

*index* - index at which the specified element is to be inserted

*element* - element to be inserted

### Exceptions:

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

Implemented in **decaf::util::StlList< E >** (p. 3022), **decaf::util::StlList< CompositeTask \* >** (p. 3022), **decaf::util::StlList< URI >** (p. 3022), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3022), **decaf::util::StlList< PrimitiveValueNode >** (p. 3022), **decaf::util::StlList< Pointer< Command > >** (p. 3022), and **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3022).

**6.399.3.2** **template<typename E> virtual bool decaf::util::List< E >::addAll (std::size\_t *index*, const Collection< E > & *source*) throw (decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException)** [pure virtual]

Inserts all of the elements in the specified collection into this list at the specified position (optional operation). Shifts the element currently at that position (if any) and any subsequent elements to

the right (increases their indices). The new elements will appear in this list in the order that they are returned by the specified collection's iterator. The behavior of this operation is undefined if the specified collection is modified while the operation is in progress. (Note that this will occur if the specified collection is this list, and it's nonempty.)

**Parameters:**

*index* The index at which to insert the first element from the specified collection  
*source* The **Collection** (p. 1054) containing elements to be added to this list

**Returns:**

true if this list changed as a result of the call

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size  
*UnsupportedOperationException* - If the collection is non-modifiable.

Implemented in **decaf::util::StlList< E >** (p. 3023), **decaf::util::StlList< CompositeTask \* >** (p. 3023), **decaf::util::StlList< URI >** (p. 3023), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3023), **decaf::util::StlList< PrimitiveValueNode >** (p. 3023), **decaf::util::StlList< Pointer< Command > >** (p. 3023), and **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3023).

**6.399.3.3** `template<typename E> virtual E decaf::util::List< E >::get (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Gets the element contained at position passed.

**Parameters:**

*index* - position to get

**Returns:**

value at index

Implemented in **decaf::util::StlList< E >** (p. 3024), **decaf::util::StlList< CompositeTask \* >** (p. 3024), **decaf::util::StlList< URI >** (p. 3024), **decaf::util::StlList< Pointer< DestinationInfo > >** (p. 3024), **decaf::util::StlList< PrimitiveValueNode >** (p. 3024), **decaf::util::StlList< Pointer< Command > >** (p. 3024), and **decaf::util::StlList< Pointer< BackupTransport > >** (p. 3024).

**6.399.3.4** `template<typename E> virtual std::size_t decaf::util::List< E >::indexOf (const E & value) throw ( decaf::lang::exceptions::NoSuchElementException ) [pure virtual]`

Returns the index of the first occurrence of the specified element in this list, or -1 if this list does not contain the element. More formally, returns the lowest index i such that get(i) == value, or -1 if there is no such index.

**Parameters:**

*value* - element to search for

**Returns:**

the index of the first occurrence of the specified element in this list,

**Exceptions:**

*NoSuchElementException* if value is not in the list

Implemented in `decaf::util::StlList< E >` (p. 3025), `decaf::util::StlList< CompositeTask * >` (p. 3025), `decaf::util::StlList< URI >` (p. 3025), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3025), `decaf::util::StlList< PrimitiveValueNode >` (p. 3025), `decaf::util::StlList< Pointer< Command > >` (p. 3025), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3025).

**6.399.3.5** `template<typename E> virtual size_t decaf::util::List< E >::lastIndexOf (const E & value) throw ( decaf::lang::exceptions::NoSuchElementException ) [pure virtual]`

Returns the index of the last occurrence of the specified element in this list, or -1 if this list does not contain the element. More formally, returns the highest index *i* such that `get(i) == value` or -1 if there is no such index.

**Parameters:**

*value* - element to search for

**Returns:**

the index of the last occurrence of the specified element in this list.

**Exceptions:**

*NoSuchElementException* if value is not in the list

Implemented in `decaf::util::StlList< E >` (p. 3026), `decaf::util::StlList< CompositeTask * >` (p. 3026), `decaf::util::StlList< URI >` (p. 3026), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3026), `decaf::util::StlList< PrimitiveValueNode >` (p. 3026), `decaf::util::StlList< Pointer< Command > >` (p. 3026), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3026).

**6.399.3.6** `template<typename E> virtual ListIterator<E>* decaf::util::List< E >::listIterator (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Implemented in `decaf::util::StlList< E >` (p. 3026), `decaf::util::StlList< CompositeTask * >` (p. 3026), `decaf::util::StlList< URI >` (p. 3026), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3026), `decaf::util::StlList< PrimitiveValueNode >` (p. 3026), `decaf::util::StlList< Pointer< Command > >` (p. 3026), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3026).

**6.399.3.7** `template<typename E> virtual ListIterator<E>*  
decaf::util::List< E >::listIterator (std::size_t index) throw (  
decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

**Parameters:**

*index* index of first element to be returned from the list iterator (by a call to the next method).

**Returns:**

a list iterator of the elements in this list (in proper sequence), starting at the specified position in this list. The specified index indicates the first element that would be returned by an initial call to next. An initial call to previous would return the element with the specified index minus one.

**Exceptions:**

*IndexOutOfBoundsException* if the index is out of range (`index < 0 || index > size()` (p. 1062))

Implemented in `decaf::util::StlList< E >` (p. 3026), `decaf::util::StlList< CompositeTask * >` (p. 3026), `decaf::util::StlList< URI >` (p. 3026), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3026), `decaf::util::StlList< PrimitiveValueNode >` (p. 3026), `decaf::util::StlList< Pointer< Command > >` (p. 3026), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3026).

**6.399.3.8** `template<typename E> virtual ListIterator<E>* decaf::util::List< E  
>::listIterator () const [pure virtual]`

Implemented in `decaf::util::StlList< E >` (p. 3027), `decaf::util::StlList< CompositeTask * >` (p. 3027), `decaf::util::StlList< URI >` (p. 3027), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3027), `decaf::util::StlList< PrimitiveValueNode >` (p. 3027), `decaf::util::StlList< Pointer< Command > >` (p. 3027), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3027).

**6.399.3.9** `template<typename E> virtual ListIterator<E>* decaf::util::List< E  
>::listIterator () [pure virtual]`

**Returns:**

a list iterator over the elements in this list (in proper sequence).

Implemented in `decaf::util::StlList< E >` (p. 3027), `decaf::util::StlList< CompositeTask * >` (p. 3027), `decaf::util::StlList< URI >` (p. 3027), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3027), `decaf::util::StlList< PrimitiveValueNode >` (p. 3027), `decaf::util::StlList< Pointer< Command > >` (p. 3027), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3027).



```

6.399.3.10  template<typename E> virtual E decaf::util::List<
               E >::remove (std::size_t index) throw ( de-
               caf::lang::exceptions::UnsupportedOperationException,
               decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]

```

Removes the element at the specified position in this list. Shifts any subsequent elements to the left (subtracts one from their indices). Returns the element that was removed from the list.

**Parameters:**

*index* - the index of the element to be removed

**Returns:**

the element previously at the specified position

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

Implemented in `decaf::util::StlList< E >` (p. 3027), `decaf::util::StlList< CompositeTask * >` (p. 3027), `decaf::util::StlList< URI >` (p. 3027), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3027), `decaf::util::StlList< PrimitiveValueNode >` (p. 3027), `decaf::util::StlList< Pointer< Command > >` (p. 3027), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3027).

```

6.399.3.11  template<typename E> virtual E decaf::util::List< E
               >::set (std::size_t index, const E & element) throw (
               decaf::lang::exceptions::IndexOutOfBoundsException ) [pure virtual]

```

Replaces the element at the specified position in this list with the specified element.

**Parameters:**

*index* - index of the element to replace

*element* - element to be stored at the specified position

**Returns:**

the element previously at the specified position

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

Implemented in `decaf::util::StlList< E >` (p. 3028), `decaf::util::StlList< CompositeTask * >` (p. 3028), `decaf::util::StlList< URI >` (p. 3028), `decaf::util::StlList< Pointer< DestinationInfo > >` (p. 3028), `decaf::util::StlList< PrimitiveValueNode >` (p. 3028), `decaf::util::StlList< Pointer< Command > >` (p. 3028), and `decaf::util::StlList< Pointer< BackupTransport > >` (p. 3028).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/List.h`

## 6.400 decaf::util::ListIterator< E > Class Template Reference

An iterator for lists that allows the programmer to traverse the list in either direction, modify the list during iteration, and obtain the iterator's current position in the list.

```
#include <src/main/decaf/util/ListIterator.h> Inheritance diagram for
decaf::util::ListIterator< E >:
```

### Public Member Functions

- virtual **~ListIterator** ()
- virtual void **add** (const E &e)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException )  
*Inserts the specified element into the list (optional operation).*
- virtual void **set** (const E &e)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Replaces the last element returned by next or previous with the specified element (optional operation).*
- virtual bool **hasPrevious** () const =0  
*Returns true if this list iterator has more elements when traversing the list in the reverse direction.*
- virtual E **previous** ()=0  
*Returns the previous element in the list.*
- virtual int **nextIndex** () const =0  
*Returns the index of the element that would be returned by a subsequent call to next.*
- virtual int **previousIndex** () const =0  
*Returns the index of the element that would be returned by a subsequent call to previous.*

### 6.400.1 Detailed Description

```
template<typename E> class decaf::util::ListIterator< E >
```

An iterator for lists that allows the programmer to traverse the list in either direction, modify the list during iteration, and obtain the iterator's current position in the list. Note that the **remove()** (p. 1833) and **set(Object)** methods are not defined in terms of the cursor position; they are defined to operate on the last element returned by a call to **next()** (p. 1832) or **previous()** (p. 1992).

## 6.400.2 Constructor & Destructor Documentation

**6.400.2.1** `template<typename E > virtual decaf::util::ListIterator< E >::~~ListIterator () [inline, virtual]`

## 6.400.3 Member Function Documentation

**6.400.3.1** `template<typename E > virtual void decaf::util::ListIterator< E >::add (const E & e) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException ) [pure virtual]`

Inserts the specified element into the list (optional operation). The element is inserted immediately before the next element that would be returned by next, if any, and after the next element that would be returned by previous, if any. (If the list contains no elements, the new element becomes the sole element on the list.) The new element is inserted before the implicit cursor: a subsequent call to next would be unaffected, and a subsequent call to previous would return the new element. (This call increases by one the value that would be returned by a call to nextIndex or previousIndex.)

### Parameters:

*e* - the element to insert.

### Exceptions:

*UnsupportedOperationException* - if the add method is not supported by this list iterator.

*IllegalArgumentException* - if some aspect of this element prevents it from being added to this list.

**6.400.3.2** `template<typename E > virtual bool decaf::util::ListIterator< E >::hasPrevious () const [pure virtual]`

Returns true if this list iterator has more elements when traversing the list in the reverse direction. (In other words, returns true if previous would return an element rather than throwing an exception.)

### Returns:

true if the list iterator has more elements when traversing the list in the reverse direction.

**6.400.3.3** `template<typename E > virtual int decaf::util::ListIterator< E >::nextIndex () const [pure virtual]`

Returns the index of the element that would be returned by a subsequent call to next. (Returns list size if the list iterator is at the end of the list.)

### Returns:

the index of the element that would be returned by a subsequent call to next, or list size if list iterator is at end of list.

**6.400.3.4** `template<typename E > virtual E decaf::util::ListIterator< E >::previous  
( ) [pure virtual]`

Returns the previous element in the list. This method may be called repeatedly to iterate through the list backwards, or intermixed with calls to `next` to go back and forth. (Note that alternating calls to `next` and `previous` will return the same element repeatedly.)

**Returns:**

the previous element in the list.

**Exceptions:**

*NoSuchElementException* - if the iteration has no previous element.

**6.400.3.5** `template<typename E > virtual int decaf::util::ListIterator< E  
>::previousIndex ( ) const [pure virtual]`

Returns the index of the element that would be returned by a subsequent call to `previous`. (Returns -1 if the list iterator is at the beginning of the list.)

**Returns:**

the index of the element that would be returned by a subsequent call to `previous`, or -1 if list iterator is at beginning of list.

**6.400.3.6** `template<typename E > virtual void  
decaf::util::ListIterator< E >::set (const E & e) throw (  
decaf::lang::exceptions::UnsupportedOperationException,  
decaf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::IllegalStateException ) [pure virtual]`

Replaces the last element returned by `next` or `previous` with the specified element (optional operation). This call can be made only if neither **ListIterator.remove** (p. 1833) nor **ListIterator.add** (p. 1991) have been called after the last call to `next` or `previous`.

**Parameters:**

*e* - the element with which to replace the last element returned by `next` or `previous`.

**Exceptions:**

*UnsupportedOperationException* - if the add method is not supported by this list iterator.

*IllegalArgumentException* - if some aspect of this element prevents it from being added to this list.

*IllegalStateException* - if neither `next` nor `previous` have been called, or `remove` or `add` have been called after the last call to `next` or `previous`.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/ListIterator.h`

## 6.401 activemq::commands::LocalTransactionId Class Reference

#include <src/main/activemq/commands/LocalTransactionId.h> Inheritance diagram for activemq::commands::LocalTransactionId:

### Public Types

- typedef decaf::lang::PointerComparator< LocalTransactionId > COMPARATOR

### Public Member Functions

- LocalTransactionId ()
- LocalTransactionId (const LocalTransactionId &other)
- virtual ~LocalTransactionId ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual LocalTransactionId \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const DataStructure \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this DataStructure (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const DataStructure \*value) const  
*Compares the DataStructure (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual long long **getValue** () const
- virtual void **setValue** (long long value)
- virtual const Pointer< ConnectionId > & **getConnectionId** () const
- virtual Pointer< ConnectionId > & **getConnectionId** ()
- virtual void **setConnectionId** (const Pointer< ConnectionId > &connectionId)
- virtual int **compareTo** (const LocalTransactionId &value) const
- virtual bool **equals** (const LocalTransactionId &value) const
- virtual bool **operator==** (const LocalTransactionId &value) const
- virtual bool **operator<** (const LocalTransactionId &value) const
- LocalTransactionId & **operator=** (const LocalTransactionId &other)

### Static Public Attributes

- static const unsigned char **ID\_LOCALTRANSACTIONID** = 111

## Protected Attributes

- long long `value`
- `Pointer< ConnectionId > connectionId`

### 6.401.1 Member Typedef Documentation

**6.401.1.1** `typedef decaf::lang::PointerComparator<LocalTransactionId>  
activemq::commands::LocalTransactionId::COMPARATOR`

Reimplemented from `activemq::commands::TransactionId` (p. 3217).

### 6.401.2 Constructor & Destructor Documentation

**6.401.2.1** `activemq::commands::LocalTransactionId::LocalTransactionId ()`

**6.401.2.2** `activemq::commands::LocalTransactionId::LocalTransactionId (const  
LocalTransactionId & other)`

**6.401.2.3** `virtual activemq::commands::LocalTransactionId::~~LocalTransactionId ()  
[virtual]`

### 6.401.3 Member Function Documentation

**6.401.3.1** `virtual LocalTransactionId* ac-  
tivemq::commands::LocalTransactionId::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Reimplemented from `activemq::commands::TransactionId` (p. 3218).

**6.401.3.2** `virtual int activemq::commands::LocalTransactionId::compareTo (const  
LocalTransactionId & value) const [virtual]`

**6.401.3.3** `virtual void activemq::commands::LocalTransactionId::copyDataStructure  
(const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::TransactionId` (p. 3218).

**6.401.3.4** `virtual bool activemq::commands::LocalTransactionId::equals (const LocalTransactionId & value) const` [virtual]

**6.401.3.5** `virtual bool activemq::commands::LocalTransactionId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::TransactionId** (p. 3218).

**6.401.3.6** `virtual Pointer<ConnectionId>& activemq::commands::LocalTransactionId::getConnectionId ()` [virtual]

**6.401.3.7** `virtual const Pointer<ConnectionId>& activemq::commands::LocalTransactionId::getConnectionId () const` [virtual]

**6.401.3.8** `virtual unsigned char activemq::commands::LocalTransactionId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from **activemq::commands::TransactionId** (p. 3219).

- 6.401.3.9    `virtual long long activemq::commands::LocalTransactionId::getValue ()`  
                  `const [virtual]`
- 6.401.3.10   `virtual bool activemq::commands::LocalTransactionId::operator< (const`  
                  `LocalTransactionId & value) const [virtual]`
- 6.401.3.11   `LocalTransactionId& ac-`  
                  `tivemq::commands::LocalTransactionId::operator= (const`  
                  `LocalTransactionId & other)`
- 6.401.3.12   `virtual bool activemq::commands::LocalTransactionId::operator==`  
                  `(const LocalTransactionId & value) const [virtual]`
- 6.401.3.13   `virtual void activemq::commands::LocalTransactionId::setConnectionId`  
                  `(const Pointer< ConnectionId > & connectionId) [virtual]`
- 6.401.3.14   `virtual void activemq::commands::LocalTransactionId::setValue (long`  
                  `long value) [virtual]`
- 6.401.3.15   `virtual std::string activemq::commands::LocalTransactionId::toString ()`  
                  `const [virtual]`

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::TransactionId` (p. 3219).

## 6.401.4 Field Documentation

- 6.401.4.1   `Pointer<ConnectionId> ac-`  
                  `tivemq::commands::LocalTransactionId::connectionId`  
                  `[protected]`
- 6.401.4.2   `const unsigned char activemq::commands::LocalTransactionId::ID_ -`  
                  `LOCALTRANSACTIONID = 111 [static]`
- 6.401.4.3   `long long activemq::commands::LocalTransactionId::value [protected]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/LocalTransactionId.h`



## 6.402 activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p.1997).

#include <src/main/activemq/wireformat/openwire/marshal/v2/LocalTransactionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller:

### Public Member Functions

- **LocalTransactionIdMarshaller** ()
- virtual **~LocalTransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.402.1 Detailed Description

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p.1997). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.402.2 Constructor & Destructor Documentation

**6.402.2.1** `activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::LocalTransactionIdMarshaller()` [inline]

**6.402.2.2** `virtual activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::~LocalTransactionIdMarshaller()` [inline, virtual]

## 6.402.3 Member Function Documentation

**6.402.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.402.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.402.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3221).

**6.402.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3221).

**6.402.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3222).

**6.402.3.6** virtual void activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3222).

**6.402.3.7** virtual void activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3223).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**LocalTransactionIdMarshaller.h**

## 6.403 activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2001).

#include <src/main/activemq/wireformat/openwire/marshal/v3/LocalTransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller:

### Public Member Functions

- **LocalTransactionIdMarshaller** ()
- virtual **~LocalTransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.403.1 Detailed Description

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2001). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.403.2 Constructor & Destructor Documentation

**6.403.2.1** `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::LocalTransactionIdMarshaller()` [inline]

**6.403.2.2** `virtual activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::~LocalTransactionIdMarshaller()` [inline, virtual]

## 6.403.3 Member Function Documentation

**6.403.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.403.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.403.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3237).

**6.403.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3237).

**6.403.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3238).

**6.403.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3238).

**6.403.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3239).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/LocalTransactionIdMarshaller.h`



## 6.404 activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2005).

#include <src/main/activemq/wireformat/openwire/marshal/v4/LocalTransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller:

### Public Member Functions

- **LocalTransactionIdMarshaller** ()
- virtual **~LocalTransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.404.1 Detailed Description

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2005). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.404.2 Constructor & Destructor Documentation

**6.404.2.1** `activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::LocalTransactionIdMarshaller()` [inline]

**6.404.2.2** `virtual activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::~LocalTransactionIdMarshaller()` [inline, virtual]

## 6.404.3 Member Function Documentation

**6.404.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.404.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.404.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3229).

**6.404.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3229).

**6.404.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3230).

**6.404.3.6** `virtual void activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3230).

**6.404.3.7** `virtual void activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3231).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/LocalTransactionIdMarshaller.h`

## 6.405 activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p.2009).

#include <src/main/activemq/wireformat/openwire/marshal/v1/LocalTransactionIdMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller:

### Public Member Functions

- **LocalTransactionIdMarshaller** ()
- virtual **~LocalTransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.405.1 Detailed Description

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p.2009). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.405.2 Constructor & Destructor Documentation

**6.405.2.1** `activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::LocalTransactionIdMarshaller()` [inline]

**6.405.2.2** `virtual activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::~LocalTransactionIdMarshaller()` [inline, virtual]

## 6.405.3 Member Function Documentation

**6.405.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.405.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.405.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3225).

**6.405.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3225).

**6.405.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3226).

**6.405.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3226).

**6.405.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3227).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/LocalTransactionIdMarshaller.h`



## 6.406 activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2013).

#include <src/main/activemq/wireformat/openwire/marshal/v5/LocalTransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller:

### Public Member Functions

- **LocalTransactionIdMarshaller** ()
- virtual **~LocalTransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.406.1 Detailed Description

Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2013). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.406.2 Constructor & Destructor Documentation

**6.406.2.1** `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::LocalTransactionIdMarshaller()` [inline]

**6.406.2.2** `virtual activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::~LocalTransactionIdMarshaller()` [inline, virtual]

## 6.406.3 Member Function Documentation

**6.406.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.406.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.406.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3233).

**6.406.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3233).

**6.406.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3234).

**6.406.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3234).

**6.406.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3235).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/LocalTransactionIdMarshaller.h`

## 6.407 decaf::util::concurrent::locks::Lock Class Reference

**Lock** (p. 2017) implementations provide more extensive locking operations than can be obtained using synchronized statements.

#include <src/main/decaf/util/concurrent/locks/Lock.h> Inheritance diagram for decaf::util::concurrent::locks::Lock:

### Public Member Functions

- virtual **~Lock** ()
- virtual void **lock** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Acquires the lock.*
- virtual void **lockInterruptibly** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException )  
*Acquires the lock unless the current thread is interrupted.*
- virtual bool **tryLock** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Acquires the lock only if it is free at the time of invocation.*
- virtual bool **tryLock** (long long time, const **TimeUnit** &unit)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException )  
*Acquires the lock if it is free within the given waiting time and the current thread has not been interrupted.*
- virtual void **unlock** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Releases the lock.*
- virtual **Condition** \* **newCondition** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::UnsupportedOperationException )  
*Returns a new **Condition** (p. 1118) instance that is bound to this **Lock** (p. 2017) instance.*

### 6.407.1 Detailed Description

**Lock** (p. 2017) implementations provide more extensive locking operations than can be obtained using synchronized statements. They allow more flexible structuring, may have quite different properties, and may support multiple associated **Condition** (p. 1118) objects.

A lock is a tool for controlling access to a shared resource by multiple threads. Commonly, a lock provides exclusive access to a shared resource: only one thread at a time can acquire the lock and all access to the shared resource requires that the lock be acquired first. However, some locks may allow concurrent access to a shared resource, such as the read lock of a **ReadWriteLock** (p. 2688).

While the scoping mechanism for synchronized statements makes it much easier to program with monitor locks, and helps avoid many common programming errors involving locks, there are

occasions where you need to work with locks in a more flexible way. For example, some algorithms for traversing concurrently accessed data structures require the use of "hand-over-hand" or "chain locking": you acquire the lock of node A, then node B, then release A and acquire C, then release B and acquire D and so on. Implementations of the **Lock** (p. 2017) interface enable the use of such techniques by allowing a lock to be acquired and released in different scopes, and allowing multiple locks to be acquired and released in any order.

With this increased flexibility comes additional responsibility. The absence of block-structured locking removes the automatic release of locks that occurs with synchronized statements. In most cases, the following idiom should be used:

```
Lock (p. 2017) l = ...; l.lock(); try { // access the resource protected by this lock } catch(...) { l.unlock(); }
```

When locking and unlocking occur in different scopes, care must be taken to ensure that all code that is executed while the lock is held is protected by try-catch ensure that the lock is released when necessary.

**Lock** (p. 2017) implementations provide additional functionality over the use of synchronized methods and statements by providing a non-blocking attempt to acquire a lock (**tryLock()** (p. 2021)), an attempt to acquire the lock that can be interrupted (**lockInterruptibly()** (p. 2019), and an attempt to acquire the lock that can timeout (**tryLock(long, TimeUnit)**).

Note that **Lock** (p. 2017) instances are just normal objects and can themselves be used as the target in a synchronized statement.

The three forms of lock acquisition (interruptible, non-interruptible, and timed) may differ in their performance characteristics, ordering guarantees, or other implementation qualities. Further, the ability to interrupt the ongoing acquisition of a lock may not be available in a given **Lock** (p. 2017) class. Consequently, an implementation is not required to define exactly the same guarantees or semantics for all three forms of lock acquisition, nor is it required to support interruption of an ongoing lock acquisition. An implementation is required to clearly document the semantics and guarantees provided by each of the locking methods. It must also obey the interruption semantics as defined in this interface, to the extent that interruption of lock acquisition is supported: which is either totally, or only on method entry.

As interruption generally implies cancellation, and checks for interruption are often infrequent, an implementation can favor responding to an interrupt over normal method return. This is true even if it can be shown that the interrupt occurred after another action may have unblocked the thread. An implementation should document this behavior.

Since:

1.0

## 6.407.2 Constructor & Destructor Documentation

**6.407.2.1** `virtual decaf::util::concurrent::locks::Lock::~~Lock () [inline, virtual]`

## 6.407.3 Member Function Documentation

**6.407.3.1** `virtual void decaf::util::concurrent::locks::Lock::lock () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]`

Acquires the lock. If the lock is not available then the current thread becomes disabled for thread scheduling purposes and lies dormant until the lock has been acquired.

Implementation Considerations

A **Lock** (p.2017) implementation may be able to detect erroneous use of the lock, such as an invocation that would cause deadlock, and may throw an exception in such circumstances. The circumstances and the exception type must be documented by that **Lock** (p.2017) implementation.

#### Exceptions:

***RuntimeException*** if an error occurs while acquiring the lock.

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p.2695).

#### 6.407.3.2 virtual void decaf::util::concurrent::locks::Lock::lockInterruptibly ( ) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException ) [pure virtual]

Acquires the lock unless the current thread is interrupted. Acquires the lock if it is available and returns immediately.

If the lock is not available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of two things happens:

\* The lock is acquired by the current thread; or \* Some other thread interrupts the current thread, and interruption of lock acquisition is supported.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while acquiring the lock, and interruption of lock acquisition is supported,

then InterruptedException is thrown and the current thread's interrupted status is cleared.

#### Implementation Considerations

The ability to interrupt a lock acquisition in some implementations may not be possible, and if possible may be an expensive operation. The programmer should be aware that this may be the case. An implementation should document when this is the case.

An implementation can favor responding to an interrupt over normal method return.

A **Lock** (p.2017) implementation may be able to detect erroneous use of the lock, such as an invocation that would cause deadlock, and may throw an exception in such circumstances. The circumstances and the exception type must be documented by that **Lock** (p.2017) implementation.

#### Exceptions:

***RuntimeException*** if an error occurs while acquiring the lock.

***InterruptedException*** if the current thread is interrupted while acquiring the lock (and interruption of lock acquisition is supported).

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p.2695).

#### 6.407.3.3 virtual Condition\* decaf::util::concurrent::locks::Lock::newCondition ( ) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]

Returns a new **Condition** (p.1118) instance that is bound to this **Lock** (p.2017) instance. Before waiting on the condition the lock must be held by the current thread. A call to **Condition.await()**

(p. 1120) will atomically release the lock before waiting and re-acquire the lock before the wait returns.

#### Implementation Considerations

The exact operation of the **Condition** (p. 1118) instance depends on the **Lock** (p. 2017) implementation and must be documented by that implementation.

#### Returns:

A new **Condition** (p. 1118) instance for this **Lock** (p. 2017) instance the caller must delete the returned **Condition** (p. 1118) object when done with it.

#### Exceptions:

*RuntimeException* if an error occurs while creating the **Condition** (p. 1118).

*UnsupportedOperationException* if this **Lock** (p. 2017) implementation does not support conditions

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p. 2696).

**6.407.3.4 virtual bool decaf::util::concurrent::locks::Lock::tryLock**  
 (long long *time*, const TimeUnit & *unit*) throw  
 ( decaf::lang::exceptions::RuntimeException, de-  
 caf::lang::exceptions::InterruptedException ) [pure  
 virtual]

Acquires the lock if it is free within the given waiting time and the current thread has not been interrupted. If the lock is available this method returns immediately with the value true. If the lock is not available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

\* The lock is acquired by the current thread; or \* Some other thread interrupts the current thread, and interruption of lock acquisition is supported; or \* The specified waiting time elapses

If the lock is acquired then the value true is returned.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while acquiring the lock, and interruption of lock acquisition is supported,

then InterruptedException is thrown and the current thread's interrupted status is cleared.

If the specified waiting time elapses then the value false is returned. If the time is less than or equal to zero, the method will not wait at all.

#### Implementation Considerations

The ability to interrupt a lock acquisition in some implementations may not be possible, and if possible may be an expensive operation. The programmer should be aware that this may be the case. An implementation should document when this is the case.

An implementation can favor responding to an interrupt over normal method return, or reporting a timeout.

A **Lock** (p. 2017) implementation may be able to detect erroneous use of the lock, such as an invocation that would cause deadlock, and may throw an (unchecked) exception in such circumstances. The circumstances and the exception type must be documented by that **Lock** (p. 2017) implementation.



**Parameters:**

*time* the maximum time to wait for the lock

*unit* the time unit of the time argument

**Returns:**

true if the lock was acquired and false if the waiting time elapsed before the lock was acquired

**Exceptions:**

*RuntimeException* if an error occurs while acquiring the lock.

*InterruptedException* if the current thread is interrupted while acquiring the lock (and interruption of lock acquisition is supported)

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p. 2696).

### 6.407.3.5 virtual bool decaf::util::concurrent::locks::Lock::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]

Acquires the lock only if it is free at the time of invocation. Acquires the lock if it is available and returns immediately with the value true. If the lock is not available then this method will return immediately with the value false.

A typical usage idiom for this method would be:

```
Lock (p. 2017) lock = ...; if (lock.tryLock()) { try { // manipulate protected state } catch(...) { lock.unlock(); } } else { // perform alternative actions }
```

This usage ensures that the lock is unlocked if it was acquired, and doesn't try to unlock if the lock was not acquired.

**Returns:**

true if the lock was acquired and false otherwise

**Exceptions:**

*RuntimeException* if an error occurs while acquiring the lock.

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p. 2697).

### 6.407.3.6 virtual void decaf::util::concurrent::locks::Lock::unlock () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]

Releases the lock. Implementation Considerations

A **Lock** (p. 2017) implementation will usually impose restrictions on which thread can release a lock (typically only the holder of the lock can release it) and may throw an exception if the restriction is violated. Any restrictions and the exception type must be documented by that **Lock** (p. 2017) implementation.

**Exceptions:**

*RuntimeException* if an error occurs while acquiring the lock.

***IllegalMonitorStateException*** if the current thread is not the owner of the lock.

Implemented in **decaf::util::concurrent::locks::ReentrantLock** (p. 2698).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/locks/`**Lock.h**

## 6.408 decaf::util::concurrent::Lock Class Reference

A wrapper class around a given synchronization mechanism that provides automatic release upon destruction.

```
#include <src/main/decaf/util/concurrent/Lock.h>
```

### Public Member Functions

- **Lock** (**Synchronizable** \*object, const bool initiallyLocked=true)  
*Constructor - initializes the object member and locks the object if desired.*
- virtual ~**Lock** ()  
*Destructor - Unlocks the object if it is locked.*
- void **lock** ()  
*Locks the object.*
- void **unlock** ()  
*Unlocks the object if it is already locked, otherwise a call to this method has no effect.*
- bool **isLocked** () const  
*Indicates whether or not the object is locked.*

### 6.408.1 Detailed Description

A wrapper class around a given synchronization mechanism that provides automatic release upon destruction.

**Since:**

1.0

### 6.408.2 Constructor & Destructor Documentation

#### 6.408.2.1 decaf::util::concurrent::Lock::Lock (**Synchronizable** \* object, const bool *initiallyLocked* = true) [inline]

Constructor - initializes the object member and locks the object if desired.

**Parameters:**

*object* The sync object to control

*initiallyLocked* If true, the object will automatically be locked.

References DECAF\_CATCH\_RETHROW, DECAF\_CATCHALL\_THROW, and lock().

**6.408.2.2 virtual decaf::util::concurrent::Lock::~~Lock () [inline, virtual]**

Destructor - Unlocks the object if it is locked.

References DECAF\_CATCH\_RETHROW, DECAF\_CATCHALL\_THROW, and decaf::util::concurrent::Synchronizable::unlock().

**6.408.3 Member Function Documentation****6.408.3.1 bool decaf::util::concurrent::Lock::isLocked () const [inline]**

Indicates whether or not the object is locked.

**Returns:**

true if the object is locked, otherwise false.

**6.408.3.2 void decaf::util::concurrent::Lock::lock () [inline]**

Locks the object.

References DECAF\_CATCH\_RETHROW, DECAF\_CATCHALL\_THROW, and decaf::util::concurrent::Synchronizable::lock().

Referenced by Lock().

**6.408.3.3 void decaf::util::concurrent::Lock::unlock () [inline]**

Unlocks the object if it is already locked, otherwise a call to this method has no effect.

References DECAF\_CATCH\_RETHROW, DECAF\_CATCHALL\_THROW, and decaf::util::concurrent::Synchronizable::unlock().

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**Lock.h**

## 6.409 decaf::util::concurrent::locks::LockSupport Class Reference

Basic thread blocking primitives for creating locks and other synchronization classes.

```
#include <src/main/decaf/util/concurrent/locks/LockSupport.h>
```

### Public Member Functions

- `~LockSupport ()`

### Static Public Member Functions

- static void **unpark** (decaf::lang::Thread \*thread) throw ()  
*Makes available the permit for the given thread, if it was not already available.*
- static void **park** () throw ()  
*Disables the current thread for thread scheduling purposes unless the permit is available.*
- static void **parkNanos** (long long nanos) throw ()  
*Disables the current thread for thread scheduling purposes, for up to the specified waiting time, unless the permit is available.*
- static void **parkUntil** (long long deadline) throw ()  
*Disables the current thread for thread scheduling purposes, until the specified deadline, unless the permit is available.*

### 6.409.1 Detailed Description

Basic thread blocking primitives for creating locks and other synchronization classes. This class associates, with each thread that uses it, a permit (in the sense of the **Semaphore** (p.2827) class). A call to `park` will return immediately if the permit is available, consuming it in the process; otherwise it may block. A call to `unpark` makes the permit available, if it was not already available. (Unlike with Semaphores though, permits do not accumulate. There is at most one.)

Methods `park` and `unpark` provide efficient means of blocking and unblocking threads. Races between one thread invoking `park` and another thread trying to `unpark` it will preserve liveness, due to the permit. Additionally, `park` will return if the caller's thread was interrupted, and timeout versions are supported. The `park` method may also return at any other time, for "no reason", so in general must be invoked within a loop that rechecks conditions upon return. In this sense `park` serves as an optimization of a "busy wait" that does not waste as much time spinning, but must be paired with an `unpark` to be effective.

These methods are designed to be used as tools for creating higher-level synchronization utilities, and are not in themselves useful for most concurrency control applications. The `park` method is designed for use only in constructions of the form:

```
while (!canProceed()) { ... LockSupport.park(this); }
```

where neither `canProceed` nor any other actions prior to the call to `park` entail locking or blocking. Because only one permit is associated with each thread, any intermediary uses of `park` could interfere with its intended effects.

Sample Usage. Here is a sketch of a first-in-first-out non-reentrant lock class:

```
class FIFOMutex { private:
AtomicBoolean locked; ConcurrentLinkedQueue<Thread*> waiters;
public:
void lock() {
bool wasInterrupted = false; Thread* current = Thread::currentThread(); waiters.add( current );
// Block while not first in queue or cannot acquire lock while( waiters.peek() != current ||
!locked.compareAndSet( false, true ) ) {
LockSupport.park(this); if( Thread::interrupted() ) // ignore interrupts while waiting wasInter-
rupted = true; }
waiters.remove(); if( wasInterrupted ) // reassert interrupt status on exit current.interrupt(); }
void unlock() { locked.set( false ); LockSupport.unpark (p. 2027)( waiters.peek() ); } };
```

**Since:**

1.0

## 6.409.2 Constructor & Destructor Documentation

### 6.409.2.1 `decaf::util::concurrent::locks::LockSupport::~~LockSupport ()`

## 6.409.3 Member Function Documentation

### 6.409.3.1 `static void decaf::util::concurrent::locks::LockSupport::park () throw ()` [static]

Disables the current thread for thread scheduling purposes unless the permit is available. If the permit is available then it is consumed and the call returns immediately; otherwise the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

- \* Some other thread invokes unpark with the current thread as the target; or
- \* Some other thread interrupts the current thread; or
- \* The call spuriously (that is, for no reason) returns.

This method does not report which of these caused the method to return. Callers should re-check the conditions which caused the thread to park in the first place. Callers may also determine, for example, the interrupt status of the thread upon return.

### 6.409.3.2 `static void decaf::util::concurrent::locks::LockSupport::parkNanos (long long nanos) throw ()` [static]

Disables the current thread for thread scheduling purposes, for up to the specified waiting time, unless the permit is available. If the permit is available then it is consumed and the call returns immediately; otherwise the current thread becomes disabled for thread scheduling purposes and lies dormant until one of four things happens:

- \* Some other thread invokes unpark with the current thread as the target; or
- \* Some other thread interrupts the current thread; or
- \* The specified waiting time elapses; or
- \* The call spuriously (that is, for no reason) returns.

This method does not report which of these caused the method to return. Callers should re-check the conditions which caused the thread to park in the first place. Callers may also determine, for example, the interrupt status of the thread, or the elapsed time upon return.

**Parameters:**

*nanos* the maximum number of nanoseconds to wait

**6.409.3.3 static void decaf::util::concurrent::locks::LockSupport::parkUntil (long long *deadline*) throw () [static]**

Disables the current thread for thread scheduling purposes, until the specified deadline, unless the permit is available. If the permit is available then it is consumed and the call returns immediately; otherwise the current thread becomes disabled for thread scheduling purposes and lies dormant until one of four things happens:

\* Some other thread invokes unpark with the current thread as the target; or \* Some other thread interrupts the current thread; or \* The specified deadline passes; or \* The call spuriously (that is, for no reason) returns.

This method does not report which of these caused the method to return. Callers should re-check the conditions which caused the thread to park in the first place. Callers may also determine, for example, the interrupt status of the thread, or the current time upon return.

**Parameters:**

*deadline* the absolute time, in milliseconds from the Epoch, to wait until

**6.409.3.4 static void decaf::util::concurrent::locks::LockSupport::unpark (decaf::lang::Thread \* *thread*) throw () [static]**

Makes available the permit for the given thread, if it was not already available. If the thread was blocked on park then it will unblock. Otherwise, its next call to park is guaranteed not to block. This operation is not guaranteed to have any effect at all if the given thread has not been started.

**Parameters:**

*thread* the thread to unport, or NULL in which case the method has no effect.

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/locks/**LockSupport.h**

## 6.410 decaf::util::logging::Logger Class Reference

```
#include <src/main/decaf/util/logging/Logger.h>
```

### Public Member Functions

- **Logger** (const std::string &name, **Logger** \*parent)  
*Creates a new instance of the **Logger** (p. 2028) with the given name and assign it the given parent logger.*
- virtual ~**Logger** ()
- virtual const std::string & **getName** () const  
*Gets the name of this **Logger** (p. 2028).*
- virtual void **addHandler** (**Handler** \*handler) throw (lang::exceptions::IllegalArgumentException)  
*Add a log **Handler** (p. 1709) to receive logging messages.*
- virtual void **removeHandler** (**Handler** \*handler)  
*Removes the specified **Handler** (p. 1709) and destroys it.*
- virtual void **setFilter** (**Filter** \*filter)  
*Gets a vector containing all the handlers that this class has been assigned to use.*
- virtual const **Filter** \* **getFilter** () const  
*Gets the **Filter** (p. 1630) object that this class is using.*
- virtual **Level** **getLevel** () const  
*Get the log Level that has been specified for this **Logger** (p. 2028).*
- virtual void **setLevel** (**Level** level)  
***Set** (p. 2905) the log level specifying which message levels will be logged by this logger.*
- virtual bool **getUseParentHandlers** () const  
*Discover whether or not this logger is sending its output to its parent logger.*
- virtual void **setUseParentHandlers** (bool value)  
*pecify whether or not this logger should send its output to it's parent **Logger** (p. 2028).*
- virtual void **entry** (const std::string &blockName, const std::string &file, const int line)  
*Logs an Block Enter message.*
- virtual void **exit** (const std::string &blockName, const std::string &file, const int line)  
*Logs an Block Exit message.*
- virtual void **debug** (const std::string &file, const int line, const std::string functionName, const std::string &message)  
*Log a Debug Level Log.*



- virtual void **info** (const std::string &file, const int line, const std::string functionName, const std::string &message)  
*Log a info Level Log.*
- virtual void **warn** (const std::string &file, const int line, const std::string functionName, const std::string &message)  
*Log a warn Level Log.*
- virtual void **error** (const std::string &file, const int line, const std::string functionName, const std::string &message)  
*Log a error Level Log.*
- virtual void **fatal** (const std::string &file, const int line, const std::string functionName, const std::string &message)  
*Log a fatal Level Log.*
- virtual bool **isLoggable** (**Level** level) const  
*Log a Throw Message.*
- virtual void **log** (**LogRecord** &record)  
*Log a **LogRecord** (p. 2050).*
- virtual void **log** (**Level** level, const std::string &message)  
*Log a message, with no arguments.*
- virtual void **log** (**Level** level, const std::string &file, const int line, const std::string &message,...)  
*Log a message, with the list of params that is formatted into the message string.*
- virtual void **log** (**Level** level, const std::string &file, const int line, const std::string &message, **lang::Exception** &ex)  
*Log a message, with associated Throwable information.*

## Static Public Member Functions

- static **Logger** \* **getAnonymousLogger** ()  
*Creates an anonymous logger.*
- static **Logger** \* **getLogger** (const std::string &name)  
*Find or create a logger for a named subsystem.*

### 6.410.1 Constructor & Destructor Documentation

#### 6.410.1.1 decaf::util::logging::Logger::Logger (const std::string & name, Logger \* parent)

Creates a new instance of the **Logger** (p. 2028) with the given name and assign it the given parent logger. The logger will be initially configured with a null Level and with useParentHandlers true.

**Parameters:**

*name* - A name for the logger. This should be a dot-separated name and should normally be based on the package name or class name of the subsystem, such as java.net or javax.swing. It may be null for anonymous Loggers.

*parent* logger that is this one's parent

**6.410.1.2** virtual decaf::util::logging::Logger::~~Logger () [virtual]

**6.410.2 Member Function Documentation**

**6.410.2.1** virtual void decaf::util::logging::Logger::addHandler (Handler \* *handler*) throw ( lang::exceptions::IllegalArgumentException ) [virtual]

Add a log **Handler** (p.1709) to receive logging messages. By default, Loggers also send their output to their parent logger. Typically the root **Logger** (p.2028) is configured with a set of Handlers that essentially act as default handlers for all loggers.

**Parameters:**

*handler* A Logging **Handler** (p.1709)

**Exceptions:**

*IllegalArgumentException*

**6.410.2.2** virtual void decaf::util::logging::Logger::debug (const std::string & *file*, const int *line*, const std::string *functionName*, const std::string & *message*) [virtual]

Log a Debug Level Log. If the logger is currently enabled for the DEBUG message level then the given message is forwarded to all the registered output **Handler** (p.1709) objects.

**Parameters:**

*file* the file name where the log was generated

*line* the line number where the log was generated

*functionName* name of the function that logged this

*message* the message to log

**6.410.2.3** virtual void decaf::util::logging::Logger::entry (const std::string & *blockName*, const std::string & *file*, const int *line*) [virtual]

Logs an Block Enter message. This is a convenience method that is used to tag a block enter, a log record with the class name function name and the string Entering is logged at the DEBUG log level.

**Parameters:**

*blockName* source block name

*file* source file name

*line* source line name

#### 6.410.2.4 virtual void decaf::util::logging::Logger::error (const std::string & *file*, const int *line*, const std::string *functionName*, const std::string & *message*) [virtual]

Log a error Level Log. If the logger is currently enabled for the error message level then the given message is forwarded to all the registered output **Handler** (p.1709) objects.

##### Parameters:

*file* the file name where the log was generated  
*line* the line number where the log was generated  
*functionName* name of the function that logged this  
*message* the message to log

#### 6.410.2.5 virtual void decaf::util::logging::Logger::exit (const std::string & *blockName*, const std::string & *file*, const int *line*) [virtual]

Logs an Block Exit message. This is a convenience method that is used to tag a block exit, a log record with the class name function name and the string Exiting is logged at the DEBUG log level.

##### Parameters:

*blockName* source block name  
*file* source file name  
*line* source line name

#### 6.410.2.6 virtual void decaf::util::logging::Logger::fatal (const std::string & *file*, const int *line*, const std::string *functionName*, const std::string & *message*) [virtual]

Log a fatal Level Log. If the logger is currently enabled for the fatal message level then the given message is forwarded to all the registered output **Handler** (p.1709) objects.

##### Parameters:

*file* the file name where the log was generated  
*line* the line number where the log was generated  
*functionName* name of the function that logged this  
*message* the message to log

#### 6.410.2.7 static Logger\* decaf::util::logging::Logger::getAnonymousLogger () [static]

Creates an anonymous logger. The newly created **Logger** (p.2028) is not registered in the **Log-Manager** (p.2045) namespace. There will be no access checks on updates to the logger. Even although the new logger is anonymous, it is configured to have the root logger ("") as its parent. This means that by default it inherits its effective level and handlers from the root logger.

The caller is responsible for destroying the returned logger.

**Returns:**

Newly created anonymous logger

**6.410.2.8** `virtual const Filter* decaf::util::logging::Logger::getFilter () const`  
[inline, virtual]

Gets the **Filter** (p. 1630) object that this class is using.

**Returns:**

the **Filter** (p. 1630) in use, can be null

**6.410.2.9** `virtual Level decaf::util::logging::Logger::getLevel () const` [inline, virtual]

Get the log Level that has been specified for this **Logger** (p. 2028). The result may be the Null level, which means that this logger's effective level will be inherited from its parent.

**Returns:**

the level that is currently set

**6.410.2.10** `static Logger* decaf::util::logging::Logger::getLogger (const std::string & name)` [static]

Find or create a logger for a named subsystem. If a logger has already been created with the given name it is returned. Otherwise a new logger is created.

If a new logger is created its log level will be configured based on the **LogManager** (p. 2045) and it will be configured to also send logging output to its parent loggers Handlers. It will be registered in the **LogManager** (p. 2045) global namespace.

**Parameters:**

*name* - A name for the logger. This should be a dot-separated name and should normally be based on the package name or class name of the subsystem, such as `cms` or `activemq.core.ActiveMQConnection` (p. 233)

**Returns:**

a suitable logger.

**6.410.2.11** `virtual const std::string& decaf::util::logging::Logger::getName () const`  
[inline, virtual]

Gets the name of this **Logger** (p. 2028).

**Returns:**

logger name

**6.410.2.12** `virtual bool decaf::util::logging::Logger::getUseParentHandlers () const`  
[inline, virtual]

Discover whether or not this logger is sending its output to its parent logger.

**Returns:**

true if using Parent Handlers

**6.410.2.13** `virtual void decaf::util::logging::Logger::info (const std::string & file,  
const int line, const std::string functionName, const std::string &  
message)` [virtual]

Log a info Level Log. If the logger is currently enabled for the info message level then the given message is forwarded to all the registered output **Handler** (p.1709) objects.

**Parameters:**

*file* the file name where the log was generated  
*line* the line number where the log was generated  
*functionName* name of the function that logged this  
*message* the message to log

**6.410.2.14** `virtual bool decaf::util::logging::Logger::isLoggable (Level level) const`  
[virtual]

Log a Throw Message. If the logger is currently enabled for the Throwing message level then the given message is forwarded to all the registered output **Handler** (p.1709) objects.

**Parameters:**

*file* the file name where the log was generated  
*line* the line number where the log was generated  
*functionName* name of the function that logged this  
*message* the message to log  
`virtual void throwing( const std::string& file, const int line,  
const std::string functionName, const std::string& message );` Check if a message of the given level would actually be logged by this logger. This check is based on the Loggers effective level, which may be inherited from its parent.  
*level* - a message logging level

**Returns:**

true if the given message level is currently being logged.

**6.410.2.15** `virtual void decaf::util::logging::Logger::log (Level level, const  
std::string & file, const int line, const std::string & message,  
lang::Exception & ex)` [virtual]

Log a message, with associated Throwable information. If the logger is currently enabled for the given message level then the given arguments are stored in a **LogRecord** (p.2050) which is

forwarded to all registered output handlers. Note that the thrown argument is stored in the **LogRecord** (p. 2050) thrown property, rather than the **LogRecord** (p. 2050) parameters property. Thus is it processed specially by output Formatters and is not treated as a formatting parameter to the **LogRecord** (p. 2050) message property.

**Parameters:**

*level* the Level to log at.  
*file* File that the message was logged in.  
*line* the line number where the message was logged at.  
*message* the message to log.  
*ex* the Exception to log

**6.410.2.16** `virtual void decaf::util::logging::Logger::log (Level level, const std::string & file, const int line, const std::string & message, ...)`  
 [virtual]

Log a message, with the list of params that is formatted into the message string. If the logger is currently enabled for the given message level then the given message is forwarded to all the registered output **Handler** (p. 1709) objects

**Parameters:**

*level* the Level to log at  
*file* the message to log  
*line* the line in the file  
 ... variable length argument to format the message string.

**6.410.2.17** `virtual void decaf::util::logging::Logger::log (Level level, const std::string & message)` [virtual]

Log a message, with no arguments. If the logger is currently enabled for the given message level then the given message is forwarded to all the registered output **Handler** (p. 1709) objects

**Parameters:**

*level* the Level to log at  
*message* the message to log

**6.410.2.18** `virtual void decaf::util::logging::Logger::log (LogRecord & record)`  
 [virtual]

Log a **LogRecord** (p. 2050). All the other logging methods in this class call through this method to actually perform any logging. Subclasses can override this single method to capture all log activity.

**Parameters:**

*record* - the **LogRecord** (p. 2050) to be published

**6.410.2.19 virtual void decaf::util::logging::Logger::removeHandler (Handler \* *handler*) [virtual]**

Removes the specified **Handler** (p. 1709) and destroys it. Returns silently if the given **Handler** (p. 1709) is not found.

**Parameters:**

*handler* The **Handler** (p. 1709) to remove

**6.410.2.20 virtual void decaf::util::logging::Logger::setFilter (Filter \* *filter*) [virtual]**

Gets a vector containing all the handlers that this class has been assigned to use.

**Returns:**

a list of handlers that are used by this logger **Set** (p. 2905) a filter to control output on this **Logger** (p. 2028).

After passing the initial "level" check, the **Logger** (p. 2028) will call this **Filter** (p. 1630) to check if a log record should really be published.

The caller releases ownership of this filter to this logger

**Parameters:**

*filter* to use, can be null

**6.410.2.21 virtual void decaf::util::logging::Logger::setLevel (Level *level*) [inline, virtual]**

**Set** (p. 2905) the log level specifying which message levels will be logged by this logger. Message levels lower than this value will be discarded. The level value Level.OFF can be used to turn off logging.

If the new level is the Null Level, it means that this node should inherit its level from its nearest ancestor with a specific (non-null) level value.

**Parameters:**

*level* new Level value

**6.410.2.22 virtual void decaf::util::logging::Logger::setUseParentHandlers (bool *value*) [inline, virtual]**

pecify whether or not this logger should send its output to it's parent **Logger** (p. 2028). This means that any LogRecords will also be written to the parent's Handlers, and potentially to its parent, recursively up the namespace.

**Parameters:**

*value* True is output is to be written to the parent

**6.410.2.23** `virtual void decaf::util::logging::Logger::warn (const std::string & file,  
const int line, const std::string functionName, const std::string &  
message)` [virtual]

Log a warn Level Log. If the logger is currently enabled for the warn message level then the given message is forwarded to all the registered output **Handler** (p. 1709) objects.

**Parameters:**

*file* the file name where the log was generated  
*line* the line number where the log was generated  
*functionName* name of the function that logged this  
*message* the message to log

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/Logger.h`



## 6.411 decaf::util::logging::LoggerHierarchy Class Reference

```
#include <src/main/decaf/util/logging/LoggerHierarchy.h>
```

### Public Member Functions

- **LoggerHierarchy** ()
- virtual **~LoggerHierarchy** ()

### 6.411.1 Constructor & Destructor Documentation

**6.411.1.1 decaf::util::logging::LoggerHierarchy::LoggerHierarchy ()**

**6.411.1.2 virtual decaf::util::logging::LoggerHierarchy::~~LoggerHierarchy ()**  
[virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/LoggerHierarchy.h`

## 6.412 activemq::io::LoggingInputStream Class Reference

#include <src/main/activemq/io/LoggingInputStream.h> Inheritance diagram for activemq::io::LoggingInputStream:

### Public Member Functions

- **LoggingInputStream** (decaf::io::InputStream \*inputStream, bool own=false)  
*Creates a DataInputStream that uses the specified underlying InputStream.*
- virtual ~**LoggingInputStream** ()
- virtual int **read** () throw ( decaf::io::IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*

### 6.412.1 Constructor & Destructor Documentation

#### 6.412.1.1 activemq::io::LoggingInputStream::LoggingInputStream (decaf::io::InputStream \* inputStream, bool own = false)

Creates a DataInputStream that uses the specified underlying InputStream.

##### Parameters:

- inputStream* the InputStream instance to wrap.  
*own* indicates if this class owns the wrapped string defaults to false.

#### 6.412.1.2 virtual activemq::io::LoggingInputStream::~~LoggingInputStream () [virtual]

### 6.412.2 Member Function Documentation

#### 6.412.2.1 virtual int activemq::io::LoggingInputStream::read (unsigned char \* buffer, std::size\_t offset, std::size\_t bufferSize) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException ) [virtual]

Reads an array of bytes from the buffer. Blocks until the requested number of bytes are available.

##### Parameters:

- buffer* (out) the target buffer.  
*offset* the position in the buffer to start at  
*bufferSize* the size of the output buffer.

**Returns:**

The number of bytes read or -1 if EOF is detected

**Exceptions:**

***IOException*** thrown if an error occurs.

***NullPointerException*** if buffer is null

Reimplemented from **decaf::io::FilterInputStream** (p. 1635).

**6.412.2.2** `virtual int activemq::io::LoggingInputStream::read () throw ( decaf::io::IOException ) [virtual]`

Reads a single byte from the buffer. Blocks until data is available.

**Returns:**

The next byte.

**Exceptions:**

***IOException*** thrown if an error occurs.

Reimplemented from **decaf::io::FilterInputStream** (p. 1636).

The documentation for this class was generated from the following file:

- `src/main/activemq/io/LoggingInputStream.h`

## 6.413 activemq::io::LoggingOutputStream Class Reference

OutputStream filter that just logs the data being written.

#include <src/main/activemq/io/LoggingOutputStream.h>Inheritance diagram for activemq::io::LoggingOutputStream:

### Public Member Functions

- **LoggingOutputStream** (OutputStream \*next, bool own=false)  
*Constructor.*
- virtual ~**LoggingOutputStream** ()
- virtual void **write** (unsigned char c) throw ( decaf::io::IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*

### 6.413.1 Detailed Description

OutputStream filter that just logs the data being written.

### 6.413.2 Constructor & Destructor Documentation

#### 6.413.2.1 activemq::io::LoggingOutputStream::LoggingOutputStream (OutputStream \* next, bool own = false)

Constructor.

#### Parameters:

- next* The OutputStream to wrap an write logs to.
- own* If true, this object will control the lifetime of the output stream that it encapsulates.

#### 6.413.2.2 virtual activemq::io::LoggingOutputStream::~~LoggingOutputStream () [virtual]

### 6.413.3 Member Function Documentation

#### 6.413.3.1 virtual void activemq::io::LoggingOutputStream::write (const unsigned char \* buffer, std::size\_t offset, std::size\_t len) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException ) [virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The array of bytes to write.  
*offset* the position in the buffer to start at  
*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* thrown if an error occurs.  
*NullPointerException* if buffer is null.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1645).

**6.413.3.2 virtual void activemq::io::LoggingOutputStream::write (unsigned char *c*)  
throw ( decaf::io::IOException ) [virtual]**

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Reimplemented from **decaf::io::FilterOutputStream** (p. 1646).

The documentation for this class was generated from the following file:

- src/main/activemq/io/**LoggingOutputStream.h**

## 6.414 activemq::transport::logging::LoggingTransport Class Reference

A transport filter that logs commands as they are sent/received.

#include <src/main/activemq/transport/logging/LoggingTransport.h> Inheritance diagram for activemq::transport::logging::LoggingTransport:

### Public Member Functions

- **LoggingTransport** (const **Pointer**< **Transport** > &next)

*Constructor.*

- virtual ~**LoggingTransport** ()
- virtual void **onCommand** (const **Pointer**< **Command** > &command)

*Event handler for the receipt of a command.*

- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Sends a one-way command.*

- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Not supported by this class - throws an exception.*

- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Not supported by this class - throws an exception.*

### 6.414.1 Detailed Description

A transport filter that logs commands as they are sent/received.

### 6.414.2 Constructor & Destructor Documentation

#### 6.414.2.1 activemq::transport::logging::LoggingTransport::LoggingTransport (const **Pointer**< **Transport** > & next)

Constructor.

#### Parameters:

*next* - the next **Transport** (p. 3273) in the chain

**6.414.2.2**    **virtual**  
              **activemq::transport::logging::LoggingTransport::~~LoggingTransport ()**  
              [inline, virtual]

### 6.414.3 Member Function Documentation

**6.414.3.1**    **virtual void activemq::transport::logging::LoggingTransport::onCommand**  
              **(const Pointer< Command > & *command*) [virtual]**

Event handler for the receipt of a command.

#### Parameters:

*command* - the received command object.

Reimplemented from **activemq::transport::TransportFilter** (p. 3285).

**6.414.3.2**    **virtual void activemq::transport::logging::LoggingTransport::oneway**  
              **(const Pointer< Command > & *command*) throw ( decaf::io::IOException,**  
              **decaf::lang::exceptions::UnsupportedOperationException ) [virtual]**

Sends a one-way command. Does not wait for any response from the broker.

#### Parameters:

*command* the command to be sent.

#### Exceptions:

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Reimplemented from **activemq::transport::TransportFilter** (p. 3285).

**6.414.3.3**    **virtual Pointer<Response> ac-**  
              **tivemq::transport::logging::LoggingTransport::request**  
              **(const Pointer< Command > & *command*, un-**  
              **signed int *timeout*) throw ( decaf::io::IOException,**  
              **decaf::lang::exceptions::UnsupportedOperationException ) [virtual]**

Not supported by this class - throws an exception.

#### Parameters:

*command* the command that is sent as a request

*timeout* the time to wait for a response.

#### Exceptions:

*UnsupportedOperationException*.

Reimplemented from **activemq::transport::TransportFilter** (p. 3286).

**6.414.3.4** `virtual Pointer<Response> activemq::transport::logging::LoggingTransport::request (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Not supported by this class - throws an exception.

**Parameters:**

*command* the command that is sent as a request

**Exceptions:**

*UnsupportedOperationException.*

Reimplemented from `activemq::transport::TransportFilter` (p. 3287).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/logging/LoggingTransport.h`



## 6.415 decaf::util::logging::LogManager Class Reference

There is a single global **LogManager** (p. 2045) object that is used to maintain a set of shared state about Loggers and log services.

```
#include <src/main/decaf/util/logging/LogManager.h>
```

### Public Member Functions

- virtual **~LogManager** ()
- virtual void **setProperties** (const **util::Properties** &properties)  
*Sets the **Properties** (p. 2657) this **LogManager** (p. 2045) should use to configure its loggers.*
- virtual const **util::Properties** & **getProperties** () const  
*Gets a reference to the Logging **Properties** (p. 2657) used by this logger.*
- virtual std::string **getProperty** (const std::string &name)  
*Gets the value of a named property of this **LogManager** (p. 2045).*
- virtual void **addPropertyChangeListener** (PropertyChangeListener \*listener)  
*Adds a change listener for **LogManager** (p. 2045) **Properties** (p. 2657), adding the same instance of a change event listener does nothing.*
- virtual void **removePropertyChangeListener** (PropertyChangeListener \*listener)  
*Removes a properties change listener from the **LogManager** (p. 2045).*
- virtual **Logger** \* **getLogger** (const std::string &name)  
*Retrieves or creates a new **Logger** (p. 2028) using the name specified a new logger inherits the configuration of the logger's parent if there is no configuration data for the logger.*
- virtual int **getLoggerNames** (const std::vector< std::string > &names)  
*Gets a list of known **Logger** (p. 2028) Names from this Manager.*

### Static Public Member Functions

- static **LogManager** \* **getInstance** ()  
*Get the singleton instance.*
- static void **returnInstance** ()  
*Returns a Checked out instance of this Manager.*
- static void **destroy** ()  
*Forcefully Delete the Instance of this **LogManager** (p. 2045) even if there are outstanding references.*

## Protected Member Functions

- **LogManager** ()  
*Constructor, hidden to protect against direct instantiation.*
- **LogManager** (const **LogManager** &manager)  
*Copy Constructo.*
- void **operator=** (const **LogManager** &manager)  
*Assignment operator.*

### 6.415.1 Detailed Description

There is a single global **LogManager** (p. 2045) object that is used to maintain a set of shared state about Loggers and log services. This **LogManager** (p. 2045) object:

\* Manages a hierarchical namespace of **Logger** (p. 2028) objects. All named Loggers are stored in this namespace. \* Manages a set of logging control properties. These are simple key-value pairs that can be used by Handlers and other logging objects to configure themselves.

The global **LogManager** (p. 2045) object can be retrieved using `LogManager.getLogManager()`. The **LogManager** (p. 2045) object is created during class initialization and cannot subsequently be changed.

\*\*\*TODO\*\*\* By default, the **LogManager** (p. 2045) reads its initial configuration from a properties file "lib/logging.properties" in the JRE directory. If you edit that property file you can change the default logging configuration for all uses of that JRE.

In addition, the **LogManager** (p. 2045) uses two optional system properties that allow more control over reading the initial configuration:

\* "decaf.logger.config.class" \* "decaf.logger.config.file"

These two properties may be set via the Preferences API, or as command line property definitions to the "java" command, or as system property definitions passed to `JNI_CreateJavaVM`.

If the "java.util.logging.config.class" property is set, then the property value is treated as a class name. The given class will be loaded, an object will be instantiated, and that object's constructor is responsible for reading in the initial configuration. (That object may use other system properties to control its configuration.) The alternate configuration class can use `readConfiguration(InputStream)` to define properties in the **LogManager** (p. 2045).

If "java.util.logging.config.class" property is not set, then the "java.util.logging.config.file" system property can be used to specify a properties file (in `java.util.Properties` format). The initial logging configuration will be read from this file.

If neither of these properties is defined then, as described above, the **LogManager** (p. 2045) will read its initial configuration from a properties file "lib/logging.properties" in the JRE directory.

The properties for loggers and Handlers will have names starting with the dot-separated name for the handler or logger. \*\*\*TODO\*\*\*

The global logging properties may include:

\* A property "handlers". This defines a whitespace separated list of class names for handler classes to load and register as handlers on the root **Logger** (p. 2028) (the **Logger** (p. 2028) named ""). Each class name must be for a **Handler** (p. 1709) class which has a default constructor. Note that these Handlers may be created lazily, when they are first used. \* A property "<logger>.handlers".

This defines a whitespace or comma separated list of class names for handlers classes to load and register as handlers to the specified logger. Each class name must be for a **Handler** (p. 1709) class which has a default constructor. Note that these Handlers may be created lazily, when they are first used. \* A property "<logger>.useParentHandlers". This defines a boolean value. By default every logger calls its parent in addition to handling the logging message itself, this often result in messages being handled by the root logger as well. When setting this property to false a **Handler** (p. 1709) needs to be configured for this logger otherwise no logging messages are delivered. \* A property "config". This property is intended to allow arbitrary configuration code to be run. The property defines a whitespace separated list of class names. A new instance will be created for each named class. The default constructor of each class may execute arbitrary code to update the logging configuration, such as setting logger levels, adding handlers, adding filters, etc.

Loggers are organized into a naming hierarchy based on their dot separated names. Thus "a.b.c" is a child of "a.b", but "a.b1" and "a.b2" are peers.

All properties whose names end with ".level" are assumed to define log levels for Loggers. Thus "foo.level" defines a log level for the logger called "foo" and (recursively) for any of its children in the naming hierarchy. Log Levels are applied in the order they are defined in the properties file. Thus level settings for child nodes in the tree should come after settings for their parents. The property name ".level" can be used to set the level for the root of the tree.

All methods on the **LogManager** (p. 2045) object are multi-thread safe.

## 6.415.2 Constructor & Destructor Documentation

**6.415.2.1** virtual decaf::util::logging::LogManager::~~LogManager () [virtual]

**6.415.2.2** decaf::util::logging::LogManager::LogManager () [inline, protected]

Constructor, hidden to protect against direct instantiation.

**6.415.2.3** decaf::util::logging::LogManager::LogManager (const LogManager & *manager*) [protected]

Copy Constructo.

### Parameters:

*manager* the Manager to copy

## 6.415.3 Member Function Documentation

**6.415.3.1** virtual void decaf::util::logging::LogManager::addPropertyChangeListener (PropertyChangeListener \* *listener*) [virtual]

Adds a change listener for **LogManager** (p. 2045) **Properties** (p. 2657), adding the same instance of a change event listener does nothing.

### Parameters:

*listener* a PropertyChangeListener

**6.415.3.2 static void decaf::util::logging::LogManager::destroy () [static]**

Forcefully Delete the Instance of this **LogManager** (p. 2045) even if there are outstanding references.

**6.415.3.3 static LogManager\* decaf::util::logging::LogManager::getInstance () [static]**

Get the singleton instance.

**Returns:**

Pointer to an instance of the Log Manager

**6.415.3.4 virtual Logger\* decaf::util::logging::LogManager::getLogger (const std::string & name) [virtual]**

Retrieves or creates a new **Logger** (p. 2028) using the name specified a new logger inherits the configuration of the logger's parent if there is no configuration data for the logger.

**Parameters:**

*name* The name of the **Logger** (p. 2028).

**6.415.3.5 virtual int decaf::util::logging::LogManager::getLoggerNames (const std::vector< std::string > & names) [virtual]**

Gets a list of known **Logger** (p. 2028) Names from this Manager.

**Parameters:**

*names* STL Vector to hold string logger names

**Returns:**

names count of how many loggers were inserted

**6.415.3.6 virtual const util::Properties& decaf::util::logging::LogManager::getProperties () const [inline, virtual]**

Gets a reference to the Logging **Properties** (p. 2657) used by this logger.

**Returns:**

The **Logger** (p. 2028) **Properties** (p. 2657) Pointer

**6.415.3.7 virtual std::string decaf::util::logging::LogManager::getProperty (const std::string & name) [inline, virtual]**

Gets the value of a named property of this **LogManager** (p. 2045).

**Parameters:**

*name* of the Property to retrieve

**Returns:**

the value of the property

References decaf::util::Properties::getProperty().

**6.415.3.8 void decaf::util::logging::LogManager::operator= (const LogManager & *manager*) [protected]**

Assignment operator.

**Parameters:**

*manager* the manager to assign from

**6.415.3.9 virtual void decaf::util::logging::LogManager::removePropertyChangeListener (PropertyChangeListener \* *listener*) [virtual]**

Removes a properties change listener from the **LogManager** (p. 2045).

**Parameters:**

*listener* a PropertyChangeListener

**6.415.3.10 static void decaf::util::logging::LogManager::returnInstance () [static]**

Returns a Checked out instance of this Manager.

**6.415.3.11 virtual void decaf::util::logging::LogManager::setProperties (const util::Properties & *properties*) [virtual]**

Sets the **Properties** (p. 2657) this **LogManager** (p. 2045) should use to configure its loggers. Once set a properties change event is fired.

**Parameters:**

*properties* Pointer to read the configuration from

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**LogManager.h**

## 6.416 decaf::util::logging::LogRecord Class Reference

```
#include <src/main/decaf/util/logging/LogRecord.h>
```

### Public Member Functions

- **LogRecord** ()
- virtual **~LogRecord** ()
- **Level** **getLevel** () const  
*Get Level of this log record.*
- void **setLevel** (**Level** value)  
*Set (p. 2905) the Level of this Log Record.*
- const std::string & **getLoggerName** () const  
*Gets the Source Logger's Name.*
- void **setLoggerName** (const std::string &loggerName)  
*Sets the Source Logger's Name.*
- const std::string & **getSourceFile** () const  
*Gets the Source Log File name.*
- void **setSourceFile** (const std::string &sourceFile)  
*Sets the Source Log File Name.*
- unsigned long **getSourceLine** () const  
*Gets the Source Log line number.*
- void **setSourceLine** (long sourceLine)  
*Sets the Source Log line number.*
- const std::string & **getMessage** () const  
*Gets the Message to be Logged.*
- void **setMessage** (const std::string &message)  
*Sets the Message to be Logged.*
- const std::string & **getSourceFunction** () const  
*Gets the name of the function where this log was logged.*
- void **setSourceFunction** (const std::string &functionName)  
*Sets the name of the function where this log was logged.*
- unsigned long **getTimestamp** () const  
*Gets the time in mills that this message was logged.*
- void **setTimestamp** (long timeStamp)  
*Sets the time in mills that this message was logged.*

- unsigned long **getTreadId** () const  
*Gets the Thread Id where this Log was created.*
- void **setTreadId** (long threadId)  
*Sets the Thread Id where this Log was created.*

## 6.416.1 Constructor & Destructor Documentation

**6.416.1.1** `decaf::util::logging::LogRecord::LogRecord ()` [inline]

**6.416.1.2** `virtual decaf::util::logging::LogRecord::~~LogRecord ()` [inline, virtual]

## 6.416.2 Member Function Documentation

**6.416.2.1** `Level decaf::util::logging::LogRecord::getLevel () const` [inline]

Get Level of this log record.

### Returns:

Level enumeration value.

**6.416.2.2** `const std::string& decaf::util::logging::LogRecord::getLoggerName () const` [inline]

Gets the Source Logger's Name.

### Returns:

the source loggers name

**6.416.2.3** `const std::string& decaf::util::logging::LogRecord::getMessage () const` [inline]

Gets the Message to be Logged.

### Returns:

the source logger's message

Referenced by `decaf::util::logging::SimpleFormatter::formatMessage()`.

**6.416.2.4** `const std::string& decaf::util::logging::LogRecord::getSourceFile () const` [inline]

Gets the Source Log File name.

### Returns:

the source loggers name

**6.416.2.5** `const std::string& decaf::util::logging::LogRecord::getSourceFunction () const [inline]`

Gets the name of the function where this log was logged.

**Returns:**

the source logger's message

**6.416.2.6** `unsigned long decaf::util::logging::LogRecord::getSourceLine () const [inline]`

Gets the Source Log line number.

**Returns:**

the source loggers line number

**6.416.2.7** `unsigned long decaf::util::logging::LogRecord::getTimestamp () const [inline]`

Gets the time in mills that this message was logged.

**Returns:**

UTC time in milliseconds

**6.416.2.8** `unsigned long decaf::util::logging::LogRecord::getTreadId () const [inline]`

Gets the Thread Id where this Log was created.

**Returns:**

the source loggers line number

**6.416.2.9** `void decaf::util::logging::LogRecord::setLevel (Level value) [inline]`

Set (p. 2905) the Level of this Log Record.

**Parameters:**

*value* Level Enumeration Value

**6.416.2.10** `void decaf::util::logging::LogRecord::setLoggerName (const std::string & loggerName) [inline]`

Sets the Source Logger's Name.

**Parameters:**

*loggerName* the source loggers name



**6.416.2.11**    `void decaf::util::logging::LogRecord::setMessage (const std::string & message)` [inline]

Sets the Message to be Logged.

**Parameters:**

*message* the source loggers message

**6.416.2.12**    `void decaf::util::logging::LogRecord::setSourceFile (const std::string & sourceFile)` [inline]

Sets the Source Log File Name.

**Parameters:**

*sourceFile* the source loggers name

**6.416.2.13**    `void decaf::util::logging::LogRecord::setSourceFunction (const std::string & functionName)` [inline]

Sets the name of the function where this log was logged.

**Parameters:**

*functionName* the source of the log

**6.416.2.14**    `void decaf::util::logging::LogRecord::setSourceLine (long sourceLine)` [inline]

Sets the Source Log line number.

**Parameters:**

*sourceLine* the source logger's line number

**6.416.2.15**    `void decaf::util::logging::LogRecord::setTimestamp (long timeStamp)` [inline]

Sets the time in mills that this message was logged.

**Parameters:**

*timeStamp* UTC Time in Milliseconds.

**6.416.2.16**    `void decaf::util::logging::LogRecord::setTreadId (long threadId)` [inline]

Sets the Thread Id where this Log was created.

**Parameters:**

*threadId* the source logger's line number

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/LogRecord.h`

## 6.417 decaf::util::logging::LogWriter Class Reference

```
#include <src/main/decaf/util/logging/LogWriter.h>
```

### Public Member Functions

- **LogWriter** ()
- virtual **~LogWriter** ()
- virtual void **log** (const std::string &file, const int line, const std::string &prefix, const std::string &message)  
*Writes a message to the output destination.*
- virtual void **log** (const std::string &message)  
*Writes a message to the output destination.*

### Static Public Member Functions

- static **LogWriter** & **getInstance** ()  
*Get the singleton instance.*
- static void **returnInstance** ()  
*Returns a Checked out instance of this Writer.*
- static void **destroy** ()  
*Forcefully Delete the Instance of this **LogWriter** (p. 2055) even if there are outstanding references.*

### 6.417.1 Constructor & Destructor Documentation

**6.417.1.1** decaf::util::logging::LogWriter::LogWriter ()

**6.417.1.2** virtual decaf::util::logging::LogWriter::~~LogWriter () [virtual]

### 6.417.2 Member Function Documentation

**6.417.2.1** static void decaf::util::logging::LogWriter::destroy () [static]

Forcefully Delete the Instance of this **LogWriter** (p. 2055) even if there are outstanding references.

**6.417.2.2** static **LogWriter**& decaf::util::logging::LogWriter::getInstance ()  
[static]

Get the singleton instance.

**6.417.2.3**    **virtual void decaf::util::logging::LogWriter::log** (const std::string & *message*) [virtual]

Writes a message to the output destination.

**Parameters:**

*message*

**6.417.2.4**    **virtual void decaf::util::logging::LogWriter::log** (const std::string & *file*,  
const int *line*, const std::string & *prefix*, const std::string & *message*)  
[virtual]

Writes a message to the output destination.

**Parameters:**

*file*

*line*

*prefix*

*message*

**6.417.2.5**    **static void decaf::util::logging::LogWriter::returnInstance** () [static]

Returns a Checked out instance of this Writer.

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**LogWriter.h**

## 6.418 decaf::lang::Long Class Reference

#include <src/main/decaf/lang/Long.h> Inheritance diagram for decaf::lang::Long:

### Public Member Functions

- **Long** (long long value)
- **Long** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual **~Long** ()
- virtual int **compareTo** (const **Long** &l) const  
*Compares this **Long** (p. 2057) instance with another.*
- bool **equals** (const **Long** &l) const
- virtual bool **operator==** (const **Long** &l) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Long** &l) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const long long &l) const  
*Compares this **Long** (p. 2057) instance with another.*
- bool **equals** (const long long &l) const
- virtual bool **operator==** (const long long &l) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const long long &l) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*

## Static Public Member Functions

- static int **bitCount** (long long value)  
*Returns the number of one-bits in the two's complement binary representation of the specified int value.*
- static **Long decode** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Decodes a String into a **Long** (p. 2057).*
- static long long **highestOneBit** (long long value)  
*Returns an long long value with at most a single one-bit, in the position of the highest-order ("leftmost") one-bit in the specified int value.*
- static long long **lowestOneBit** (long long value)  
*Returns an long long value with at most a single one-bit, in the position of the lowest-order ("rightmost") one-bit in the specified int value.*
- static int **numberOfLeadingZeros** (long long value)  
*Returns the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified long long value.*
- static int **numberOfTrailingZeros** (long long value)  
*Returns the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified long long value.*
- static long long **parseLong** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed decimal long.*
- static long long **parseLong** (const std::string &value, int radix) throw ( exceptions::NumberFormatException )  
*Returns a **Long** (p. 2057) object holding the value extracted from the specified string when parsed with the radix given by the second argument.*
- static long long **reverseBytes** (long long value)  
*Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified long long value.*
- static long long **reverse** (long long value)  
*Returns the value obtained by reversing the order of the bits in the two's complement binary representation of the specified long long value.*
- static long long **rotateLeft** (long long value, int distance)  
*Returns the value obtained by rotating the two's complement binary representation of the specified value left by the specified number of bits.*
- static long long **rotateRight** (long long value, int distance)  
*Returns the value obtained by rotating the two's complement binary representation of the specified value right by the specified number of bits.*
- static int **signum** (long long value)

*Returns the signum function of the specified value.*

- static std::string **toString** (long long value)

*Converts the long to a String representation.*

- static std::string **toString** (long long value, int radix)
- static std::string **toHexString** (long long value)

*Returns a string representation of the integer argument as an unsigned integer in base 16.*

- static std::string **toOctalString** (long long value)

*Returns a string representation of the long long argument as an unsigned long long in base 8.*

- static std::string **toBinaryString** (long long value)

*Returns a string representation of the long long argument as an unsigned long long in base 2.*

- static **Long valueOf** (long long value)

*Returns a **Long** (p. 2057) instance representing the specified int value.*

- static **Long valueOf** (const std::string &value) throw ( exceptions::NumberFormatException )

*Returns a **Long** (p. 2057) object holding the value given by the specified std::string.*

- static **Long valueOf** (const std::string &value, int radix) throw ( exceptions::NumberFormatException )

*Returns a **Long** (p. 2057) object holding the value extracted from the specified std::string when parsed with the radix given by the second argument.*

## Static Public Attributes

- static const int **SIZE** = 64

*The size in bits of the primitive long long type.*

- static const long long **MAX\_VALUE** = (long long)0x7FFFFFFFFFFFFFFFFFLL

*The maximum value that the primitive type can hold.*

- static const long long **MIN\_VALUE** = (long long)0x8000000000000000LL

*The minimum value that the primitive type can hold.*

## 6.418.1 Constructor & Destructor Documentation

### 6.418.1.1 decaf::lang::Long::Long (long long value)

#### Parameters:

*value* - the primitive long long to wrap

### 6.418.1.2 `decaf::lang::Long::Long (const std::string & value) throw (exceptions::NumberFormatException )`

#### Parameters:

*value* - the long long formatted string to wrap

#### Exceptions:

*NumberFormatException*

### 6.418.1.3 `virtual decaf::lang::Long::~~Long () [inline, virtual]`

## 6.418.2 Member Function Documentation

### 6.418.2.1 `static int decaf::lang::Long::bitCount (long long value) [static]`

Returns the number of one-bits in the two's complement binary representation of the specified int value. This function is sometimes referred to as the population count.

#### Parameters:

*value* - the long long to count

#### Returns:

the number of one-bits in the two's complement binary representation of the specified long long value.

### 6.418.2.2 `virtual unsigned char decaf::lang::Long::byteValue () const [inline, virtual]`

Answers the byte value which the receiver represents.

#### Returns:

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2432).

### 6.418.2.3 `virtual int decaf::lang::Long::compareTo (const long long & l) const [virtual]`

Compares this **Long** (p. 2057) instance with another.

#### Parameters:

*l* - the **Integer** (p. 1762) instance to be compared

#### Returns:

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< long long >` (p. 1083).



**6.418.2.4 virtual int decaf::lang::Long::compareTo (const Long & *l*) const**  
[virtual]

Compares this **Long** (p. 2057) instance with another.

**Parameters:**

*l* - the **Long** (p. 2057) instance to be compared

**Returns:**

zero if this object represents the same integer value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable**< **Long** > (p. 1083).

**6.418.2.5 static Long decaf::lang::Long::decode (const std::string & *value*) throw ( exceptions::NumberFormatException )** [static]

Decodes a String into a **Long** (p. 2057). Accepts decimal, hexadecimal, and octal numbers given by the following grammar:

The sequence of characters following an (optional) negative sign and/or radix specifier ("0x", "0X", "#", or leading zero) is parsed as by the Integer.parseInt method with the indicated radix (10, 16, or 8). This sequence of characters must represent a positive value or a NumberFormatException will be thrown. The result is negated if first character of the specified String is the minus sign. No whitespace characters are permitted in the string.

**Parameters:**

*value* - The string to decode

**Returns:**

a **Long** (p. 2057) object containing the decoded value

**Exceptions:**

**NumberFormatException** if the string is not formatted correctly.

**6.418.2.6 virtual double decaf::lang::Long::doubleValue () const** [inline, virtual]

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.418.2.7 bool decaf::lang::Long::equals (const long long & *l*) const** [inline, virtual]**Parameters:**

*l* - the **Long** (p. 2057) object to compare against.

true if the two **Integer** (p.1762) Objects have the same value.

```
6.418.2.8  bool decaf::lang::Long::equals (const Long & l) const  [inline, virtual]
```

*l* - the **Long** (p. 2057) object to compare against.

true if the two **Integer** (p.1762) Objects have the same value.

### 6.418.2.9 virtual float decaf::lang::Long::floatValue () const [inline, virtual]

float the value of the receiver.

```
6.418.2.10 static long long decaf::lang::Long::highestOneBit (long long value)
[static]
```

*value* - the long long to be inspected

an long long value with a single one-bit, in the position of the highest-order one-bit in the specified value, or zero if the specified value is itself equal to zero.

```
6.418.2.11 virtual int decaf::lang::Long::intValue () const [inline, virtual]
```

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.418.2.12** `virtual long long decaf::lang::Long::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.418.2.13** `static long long decaf::lang::Long::lowestOneBit (long long value) [static]`

Returns an long long value with at most a single one-bit, in the position of the lowest-order ("rightmost") one-bit in the specified int value. Returns zero if the specified value has no one-bits in its two's complement binary representation, that is, if it is equal to zero.

**Parameters:**

*value* - the long long to be inspected

**Returns:**

an long long value with a single one-bit, in the position of the lowest-order one-bit in the specified value, or zero if the specified value is itself equal to zero.

**6.418.2.14** `static int decaf::lang::Long::numberOfLeadingZeros (long long value) [static]`

Returns the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified long long value. Returns 64 if the specified value has no one-bits in its two's complement representation, in other words if it is equal to zero.

Note that this method is closely related to the logarithm base 2. For all positive int values x:

$\ast \text{floor}(\log_2(x)) = 63 - \text{numberOfLeadingZeros}(x) \ast \text{ceil}(\log_2(x)) = 64 - \text{numberOfLeadingZeros}(x - 1)$

**Parameters:**

*value* - the long long to be inspected

**Returns:**

the number of zero bits preceding the highest-order ("leftmost") one-bit in the two's complement binary representation of the specified long long value, or 64 if the value is equal to zero.

**6.418.2.15** `static int decaf::lang::Long::numberOfTrailingZeros (long long value) [static]`

Returns the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified long long value. Returns 64 if the specified value has no one-bits in its two's complement representation, in other words if it is equal to zero.

**Parameters:**

*value* - the int to be inspected

**Returns:**

the number of zero bits following the lowest-order ("rightmost") one-bit in the two's complement binary representation of the specified long long value, or 64 if the value is equal to zero.

**6.418.2.16** `virtual bool decaf::lang::Long::operator< (const long long & l) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*l* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< long long >` (p. 1084).

**6.418.2.17** `virtual bool decaf::lang::Long::operator< (const Long & l) const`  
[inline, virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*l* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< Long >` (p. 1084).

**6.418.2.18** `virtual bool decaf::lang::Long::operator== (const long long & l) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*l* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements `decaf::lang::Comparable< long long >` (p. 1085).

**6.418.2.19**    **virtual bool decaf::lang::Long::operator== (const Long & l) const**  
                  [inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*l* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Long >** (p. 1085).

**6.418.2.20**    **static long long decaf::lang::Long::parseLong (const std::string & value,**  
                  **int radix) throw ( exceptions::NumberFormatException ) [static]**

Returns a **Long** (p. 2057) object holding the value extracted from the specified string when parsed with the radix given by the second argument. The first argument is interpreted as representing a signed long in the radix specified by the second argument, exactly as if the arguments were given to the `parseLong(std::string, int)` method. The result is a **Long** (p. 2057) object that represents the long long value specified by the string.

**Parameters:**

*value* - String to parse

*radix* - the base encoding of the string

**Returns:**

long long value

**Exceptions:**

*NumberFormatException* on invalid string value

**6.418.2.21**    **static long long decaf::lang::Long::parseLong (const std::string & value)**  
                  **throw ( exceptions::NumberFormatException ) [static]**

Parses the string argument as a signed decimal long. The characters in the string must all be decimal digits, except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting long value is returned, exactly as if the argument and the radix 10 were given as arguments to the `parseLong(java.lang.String, int)` method.

Note that the characters LL or ULL are not permitted to appear at the end of this string as would normally be permitted in a C++ program.

**Parameters:**

*value* - String to parse

**Returns:**

long long value

**Exceptions:**

*NumberFormatException* on invalid string value

**6.418.2.22 static long long decaf::lang::Long::reverse (long long *value*) [static]**

Returns the value obtained by reversing the order of the bits in the two's complement binary representation of the specified long long value.

**Parameters:**

*value* - the value whose bits are to be reversed

**Returns:**

the reversed bits long long.

**6.418.2.23 static long long decaf::lang::Long::reverseBytes (long long *value*) [static]**

Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified long long value.

**Parameters:**

*value* - the long long whose bytes we are to reverse

**Returns:**

the reversed long long.

**6.418.2.24 static long long decaf::lang::Long::rotateLeft (long long *value*, int *distance*) [static]**

Returns the value obtained by rotating the two's complement binary representation of the specified value left by the specified number of bits. (Bits shifted out of the left hand, or high-order, side reenter on the right, or low-order.)

Note that left rotation with a negative distance is equivalent to right rotation: rotateLeft(val, -distance) == rotateRight(val, distance). Note also that rotation by any multiple of 32 is a no-op, so all but the last five bits of the rotation distance can be ignored, even if the distance is negative: rotateLeft(val, distance) == rotateLeft(val, distance & 0x1F).

**Parameters:**

*value* - the long long to be inspected

*distance* - the number of bits to rotate

**Returns:**

the value obtained by rotating the two's complement binary representation of the specified value left by the specified number of bits.

**6.418.2.25** `static long long decaf::lang::Long::rotateRight (long long value, int distance) [static]`

Returns the value obtained by rotating the two's complement binary representation of the specified value right by the specified number of bits. (Bits shifted out of the right hand, or low-order, side reenter on the left, or high-order.)

Note that right rotation with a negative distance is equivalent to left rotation: `rotateRight(val, -distance) == rotateLeft(val, distance)`. Note also that rotation by any multiple of 32 is a no-op, so all but the last five bits of the rotation distance can be ignored, even if the distance is negative: `rotateRight(val, distance) == rotateRight(val, distance & 0x1F)`.

**Parameters:**

*value* - the long long to be inspected  
*distance* - the number of bits to rotate

**Returns:**

the value obtained by rotating the two's complement binary representation of the specified value right by the specified number of bits.

**6.418.2.26** `virtual short decaf::lang::Long::shortValue () const [inline, virtual]`

Answers the short value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2434).

**6.418.2.27** `static int decaf::lang::Long::signum (long long value) [static]`

Returns the signum function of the specified value. (The return value is -1 if the specified value is negative; 0 if the specified value is zero; and 1 if the specified value is positive.)

**Parameters:**

*value* - the long long to be inspected

**Returns:**

the signum function of the specified long long value.

**6.418.2.28** `static std::string decaf::lang::Long::toBinaryString (long long value) [static]`

Returns a string representation of the long long argument as an unsigned long long in base 2. The unsigned long long value is the argument plus  $2^{32}$  if the argument is negative; otherwise it is equal to the argument. This value is converted to a string of ASCII digits in binary (base 2) with no extra leading 0s. If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character. The characters '0' and '1' are used as binary digits.

**Parameters:**

*value* - the long long to be translated to a binary string

**Returns:**

the unsigned long long value as a binary string

**6.418.2.29 static std::string decaf::lang::Long::toHexString (long long *value*)**  
[static]

Returns a string representation of the integer argument as an unsigned integer in base 16. The unsigned integer value is the argument plus  $2^{32}$  if the argument is negative; otherwise, it is equal to the argument. This value is converted to a string of ASCII digits in hexadecimal (base 16) with no extra leading 0s. If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character. The following characters are used as hexadecimal digits:

0123456789abcdef

If uppercase letters are desired, the toUpperCase() method may be called on the result:

**Parameters:**

*value* - the long long to be translated to an Octal string

**Returns:**

the unsigned long long value as a Octal string

**6.418.2.30 static std::string decaf::lang::Long::toOctalString (long long *value*)**  
[static]

Returns a string representation of the long long argument as an unsigned long long in base 8. The unsigned long long value is the argument plus  $2^{32}$  if the argument is negative; otherwise, it is equal to the argument. This value is converted to a string of ASCII digits in octal (base 8) with no extra leading 0s.

If the unsigned magnitude is zero, it is represented by a single zero character '0'; otherwise, the first character of the representation of the unsigned magnitude will not be the zero character. The following characters are used as octal digits:

01234567

**Parameters:**

*value* - the long long to be translated to an Octal string

**Returns:**

the unsigned long long value as a Octal string



```
6.418.2.31 static std::string decaf::lang::Long::toString (long long value, int radix)
[static]
```

**6.418.2.32** `static std::string decaf::lang::Long::toString (long long value) [static]`

Converts the long to a String representation.

### Parameters:

*value* The long to convert to a std::string.

**Returns:**

string representation

### 6.418.2.33 std::string decaf::lang::Long::toString () const

**Returns:**

### this **Long** (p. 2057) Object as a String Representation

```
6.418.2.34 static Long decaf::lang::Long::valueOf (const std::string & value, int
radix) throw ( exceptions::NumberFormatException ) [static]
```

Returns a **Long** (p. 2057) object holding the value extracted from the specified `std::string` when parsed with the radix given by the second argument. The first argument is interpreted as representing a signed long long in the radix specified by the second argument, exactly as if the argument were given to the `parseLong( std::string, int )` method. The result is a **Long** (p. 2057) object that represents the long long value specified by the string.

### Parameters:

*value* - std::string to parse as base ( radix )

*radix* - base of the string to parse.

### Returns:

new **Long** (p. 2057) Object wrapping the primitive

**Exceptions:**

**NumberFormatException** if the string is not a valid long long.

```
6.418.2.35 static Long decaf::lang::Long::valueOf (const std::string & value) throw
( exceptions::NumberFormatException ) [static]
```

Returns a **Long** (p.2057) object holding the value given by the specified `std::string`. The argument is interpreted as representing a signed decimal long long, exactly as if the argument were given to the `parseLong( std::string )` method. The result is a **Integer** (p.1762) object that represents the long long value specified by the string.

## Parameters:

*value* - std::string to parse as base 10

**Returns:**

new **Long** (p. 2057) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a decimal long long.

**6.418.2.36**    `static Long decaf::lang::Long::valueOf (long long value)` [inline, static]

Returns a **Long** (p. 2057) instance representing the specified int value.

**Parameters:**

*value* - the long long to wrap

**Returns:**

the new **Integer** (p. 1762) object wrapping value.

**6.418.3    Field Documentation**

**6.418.3.1**    `const long long decaf::lang::Long::MAX_VALUE = (long long)0x7FFFFFFFFFFFFFFFFLL` [static]

The maximum value that the primitive type can hold.

**6.418.3.2**    `const long long decaf::lang::Long::MIN_VALUE = (long long)0x8000000000000000LL` [static]

The minimum value that the primitive type can hold.

**6.418.3.3**    `const int decaf::lang::Long::SIZE = 64` [static]

The size in bits of the primitive long long type.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Long.h`

## 6.419 decaf::internal::nio::LongArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/LongArrayBuffer.h> Inheritance diagram for decaf::internal::nio::LongArrayBuffer:

### Public Member Functions

- **LongArrayBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **IntArrayBuffer** (p. 1744) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **LongArrayBuffer** (long long \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **LongArrayBuffer** (p. 2071) object that wraps the given array.*
- **LongArrayBuffer** (ByteArrayPerspective &array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset.*
- **LongArrayBuffer** (const LongArrayBuffer &other)  
*Create a **LongArrayBuffer** (p. 2071) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~LongArrayBuffer ()
- virtual long long \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the long long array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual LongBuffer \* **asReadOnlyBuffer** () const  
*Creates a new, read-only long long buffer that shares this buffer's content.*
- virtual LongBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual LongBuffer \* **duplicate** ()  
*Creates a new long long buffer that shares this buffer's content.*
- virtual long long **get** () throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*
- virtual long long **get** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Absolute get method.*

- virtual bool **hasArray** () const  
*Tells whether or not this buffer is backed by an accessible long long array.*
- virtual bool **isReadOnly** () const  
*Tells whether or not this buffer is read-only.*
- virtual LongBuffer & **put** (long long value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the current position, and then increments the position.*
- virtual LongBuffer & **put** (std::size\_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )  
*Writes the given doubles into this buffer at the given index.*
- virtual LongBuffer \* **slice** () const  
*Creates a new LongBuffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)  
*Sets this **ByteArrayBuffer** (p. 870) as Read-Only.*

### 6.419.1 Constructor & Destructor Documentation

#### 6.419.1.1 decaf::internal::nio::LongArrayBuffer::LongArrayBuffer (std::size\_t capacity, bool readOnly = false)

Creates a **IntArrayBuffer** (p. 1744) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size of the array, this is the limit we read and write to.  
*readOnly* - should this buffer be read-only, default as false

#### 6.419.1.2 decaf::internal::nio::LongArrayBuffer::LongArrayBuffer (long long \* array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **LongArrayBuffer** (p. 2071) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

##### Parameters:

*array* - array to wrap

*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.419.1.3 decaf::internal::nio::LongArrayBuffer::LongArrayBuffer (ByteArrayPerspective & array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset. The capacity and limit of the new **LongArrayBuffer** (p. 2071) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteArrayPerspective** (p. 908) to wrap

*offset* - the offset into array where the buffer starts

*capacity* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

#### 6.419.1.4 decaf::internal::nio::LongArrayBuffer::LongArrayBuffer (const LongArrayBuffer & other)

Create a **LongArrayBuffer** (p. 2071) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **LongArrayBuffer** (p. 2071) this one is to mirror.

#### 6.419.1.5 virtual decaf::internal::nio::LongArrayBuffer::~~LongArrayBuffer () [virtual]

### 6.419.2 Member Function Documentation

#### 6.419.2.1 virtual long long\* decaf::internal::nio::LongArrayBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException ) [virtual]

Returns the long long array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the hasArray method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this Buffer

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::LongBuffer** (p. 2082).

**6.419.2.2** `virtual std::size_t decaf::internal::nio::LongArrayBuffer::arrayOffset  
( ) throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::LongBuffer** (p. 2082).

**6.419.2.3** `virtual LongBuffer* de-  
caf::internal::nio::LongArrayBuffer::asReadOnlyBuffer ( )  
const [virtual]`

Creates a new, read-only long long buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only long long buffer which the caller then owns.

Implements **decaf::nio::LongBuffer** (p. 2082).

**6.419.2.4** `virtual LongBuffer& decaf::internal::nio::LongArrayBuffer::compact ( )  
throw ( decaf::nio::ReadOnlyBufferException ) [virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p. 807) is copied

to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this LongBuffer

**Exceptions:**

*ReadOnlyBufferException* - If this buffer is read-only

Implements `decaf::nio::LongBuffer` (p. 2083).

**6.419.2.5** `virtual LongBuffer* decaf::internal::nio::LongArrayBuffer::duplicate ()`  
[virtual]

Creates a new long long buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new long long Buffer which the caller owns.

Implements `decaf::nio::LongBuffer` (p. 2083).

**6.419.2.6** `virtual long long decaf::internal::nio::LongArrayBuffer::get (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the Buffer where the long long is to be read

**Returns:**

the long long that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements `decaf::nio::LongBuffer` (p. 2085).

#### 6.419.2.7 `virtual long long decaf::internal::nio::LongArrayBuffer::get () throw ( decaf::nio::BufferUnderflowException ) [virtual]`

Relative get method. Reads the value at this buffer's current position, and then increments the position.

##### Returns:

the long long at the current position

##### Exceptions:

*BufferUnderflowException* if there no more data to return

Implements `decaf::nio::LongBuffer` (p. 2085).

#### 6.419.2.8 `virtual bool decaf::internal::nio::LongArrayBuffer::hasArray () const [inline, virtual]`

Tells whether or not this buffer is backed by an accessible long long array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

##### Returns:

true if, and only if, this buffer is backed by an array and is not read-only

Implements `decaf::nio::LongBuffer` (p. 2085).

#### 6.419.2.9 `virtual bool decaf::internal::nio::LongArrayBuffer::isReadOnly () const [inline, virtual]`

Tells whether or not this buffer is read-only.

##### Returns:

true if, and only if, this buffer is read-only

Implements `decaf::nio::Buffer` (p. 806).

#### 6.419.2.10 `virtual LongBuffer& decaf::internal::nio::LongArrayBuffer::put (std::size_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given doubles into this buffer at the given index.

##### Parameters:

*index* - position in the Buffer to write the data

*value* - the doubles to write.

##### Returns:

a reference to this buffer



**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::LongBuffer** (p. 2086).

**6.419.2.11** `virtual LongBuffer& decaf::internal::nio::LongArrayBuffer::put (long long value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )` [virtual]

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::LongBuffer** (p. 2086).

**6.419.2.12** `virtual void decaf::internal::nio::LongArrayBuffer::setReadOnly (bool value)` [inline, protected, virtual]

Sets this **ByteBuffer** (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.419.2.13** `virtual LongBuffer* decaf::internal::nio::LongArrayBuffer::slice () const` [virtual]

Creates a new **LongBuffer** whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **LongBuffer** which the caller owns.

Implements **decaf::nio::LongBuffer** (p. 2088).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/LongArrayBuffer.h`

## 6.420 decaf::nio::LongBuffer Class Reference

This class defines four categories of operations upon long long buffers:.

```
#include <src/main/decaf/nio/LongBuffer.h>
Inheritance diagram for decaf::nio::LongBuffer:
```

### Public Member Functions

- virtual **~LongBuffer** ()
- virtual std::string **toString** () const
- virtual long long \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the long long array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **LongBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only long long buffer that shares this buffer's content.*
- virtual **LongBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **LongBuffer** \* **duplicate** ()=0  
*Creates a new long long buffer that shares this buffer's content.*
- virtual long long **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*
- virtual long long **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **LongBuffer** & **get** (std::vector< long long > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **LongBuffer** & **get** (long long \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible long long array.*
- **LongBuffer** & **put** (**LongBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the long longs remaining in the given source buffer long longo this buffer.*

- **LongBuffer** & **put** (const long long \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )

*This method transfers long longs long longo this buffer from the given source array.*

- **LongBuffer** & **put** (std::vector< long long > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )

*This method transfers the entire content of the given source long longs array long longo this buffer.*

- virtual **LongBuffer** & **put** (long long value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )

*Writes the given long longs long longo this buffer at the current position, and then increments the position.*

- virtual **LongBuffer** & **put** (std::size\_t index, long long value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )

*Writes the given long longs long longo this buffer at the given index.*

- virtual **LongBuffer** \* **slice** () const =0

*Creates a new **LongBuffer** (p. 2079) whose content is a shared subsequence of this buffer's content.*

- virtual int **compareTo** (const **LongBuffer** &value) const

*Compares this object with the specified object for order.*

- virtual bool **equals** (const **LongBuffer** &value) const

- virtual bool **operator==** (const **LongBuffer** &value) const

*Compares equality between this object and the one passed.*

- virtual bool **operator<** (const **LongBuffer** &value) const

*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **LongBuffer** \* **allocate** (std::size\_t capacity)

*Allocates a new Double buffer.*

- static **LongBuffer** \* **wrap** (long long \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )

*Wraps the passed buffer with a new **LongBuffer** (p. 2079).*

- static **LongBuffer** \* **wrap** (std::vector< long long > &buffer)

*Wraps the passed STL long long Vector in a **LongBuffer** (p. 2079).*

## Protected Member Functions

- **LongBuffer** (std::size\_t capacity)

*Creates a **LongBuffer** (p. 2079) object that has its backing array allocated long longernally and is then owned and deleted when this object is deleted.*

### 6.420.1 Detailed Description

This class defines four categories of operations upon long long buffers:.

- o Absolute and relative get and put methods that read and write single long longs;
- o Relative bulk get methods that transfer contiguous sequences of long longs from this buffer long longo an array;
- and
- o Relative bulk put methods that transfer contiguous sequences of long longs from a long long array or some other long long buffer long longo this buffer

o Methods for compacting, duplicating, and slicing a long long buffer.

Double buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing long long array long longo a buffer, or by creating a view of an existing byte buffer

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained.

### 6.420.2 Constructor & Destructor Documentation

#### 6.420.2.1 decaf::nio::LongBuffer::LongBuffer (std::size\_t capacity) [protected]

Creates a **LongBuffer** (p. 2079) object that has its backing array allocated long longernally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size and limit of the **Buffer** (p. 803) in doubles

#### 6.420.2.2 virtual decaf::nio::LongBuffer::~~LongBuffer () [inline, virtual]

### 6.420.3 Member Function Documentation

#### 6.420.3.1 static LongBuffer\* decaf::nio::LongBuffer::allocate (std::size\_t capacity) [static]

Allocates a new Double buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

##### Parameters:

*capacity* - The size of the Double buffer in long longs

##### Returns:

the **LongBuffer** (p. 2079) that was allocated, caller owns.

**6.420.3.2** `virtual long long* decaf::nio::LongBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the long long array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this **Buffer** (p. 803)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in `decaf::internal::nio::LongArrayBuffer` (p. 2073).

**6.420.3.3** `virtual std::size_t decaf::nio::LongBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset long longo the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in `decaf::internal::nio::LongArrayBuffer` (p. 2074).

**6.420.3.4** `virtual LongBuffer* decaf::nio::LongBuffer::asReadOnlyBuffer () const [pure virtual]`

Creates a new, read-only long long buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only long long buffer which the caller then owns.

Implemented in `decaf::internal::nio::LongArrayBuffer` (p. 2074).

### 6.420.3.5 virtual LongBuffer& decaf::nio::LongBuffer::compact () throw (ReadOnlyBufferException) [pure virtual]

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

#### Returns:

a reference to this **LongBuffer** (p. 2079)

#### Exceptions:

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2074).

### 6.420.3.6 virtual int decaf::nio::LongBuffer::compareTo (const LongBuffer & value) const [virtual]

Compares this object with the specified object for order. Returns a negative long longeger, zero, or a positive long longeger as this object is less than, equal to, or greater than the specified object.

#### Parameters:

*value* - the Object to be compared.

#### Returns:

a negative long longeger, zero, or a positive long longeger as this object is less than, equal to, or greater than the specified object.

### 6.420.3.7 virtual LongBuffer\* decaf::nio::LongBuffer::duplicate () [pure virtual]

Creates a new long long buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

#### Returns:

a new long long **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2075).

**6.420.3.8** `virtual bool decaf::nio::LongBuffer::equals (const LongBuffer & value) const [virtual]`

**Returns:**

true if this value is considered equal to the passed value.

**6.420.3.9** `LongBuffer& decaf::nio::LongBuffer::get (long long * buffer, std::size_t offset, std::size_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )`

Relative bulk get method. This method transfers long longs from this buffer long longo the given destination array. If there are fewer long longs remaining in the buffer than are required to satisfy the request, that is, if `length > remaining()` (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies `length` long longs from this buffer long longo the given array, starting at the current position of this buffer and at the given offset in the array. The position of this buffer is then incremented by `length`.

**Parameters:**

*buffer* - long longer to an allocated buffer to fill

*offset* - position in the buffer to start filling

*length* - amount of data to put in the passed buffer

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

**BufferUnderflowException** (p. 837) - If there are fewer than `length` long longs remaining in this buffer

**NullPolong** longerException if the passed buffer is null.

**6.420.3.10** `LongBuffer& decaf::nio::LongBuffer::get (std::vector< long long > buffer) throw ( BufferUnderflowException )`

Relative bulk get method. This method transfers values from this buffer long longo the given destination vector. An invocation of this method of the form `src.get(a)` behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call `buffer.resize( N )` before calling this get method.

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

**BufferUnderflowException** (p. 837) - If there are fewer than `length` long longs remaining in this buffer



**6.420.3.11** `virtual long long decaf::nio::LongBuffer::get (std::size_t index) const throw ( lang::exceptions::IndexOutOfBoundsException ) [pure virtual]`

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the long long is to be read

**Returns:**

the long long that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2075).

**6.420.3.12** `virtual long long decaf::nio::LongBuffer::get () throw ( BufferUnderflowException ) [pure virtual]`

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the long long at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2076).

**6.420.3.13** `virtual bool decaf::nio::LongBuffer::hasArray () const [pure virtual]`

Tells whether or not this buffer is backed by an accessible long long array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2076).

**6.420.3.14** `virtual bool decaf::nio::LongBuffer::operator< (const LongBuffer & value) const [virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.420.3.15** `virtual bool decaf::nio::LongBuffer::operator==(const LongBuffer &value) const` [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.420.3.16** `virtual LongBuffer& decaf::nio::LongBuffer::put (std::size_t index, long long value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )` [pure virtual]

Writes the given long longs long longo this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the long longs to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2076).

**6.420.3.17** `virtual LongBuffer& decaf::nio::LongBuffer::put (long long value) throw ( BufferOverflowException, ReadOnlyBufferException )` [pure virtual]

Writes the given long longs long longo this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the long longs value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If this buffer's current position is not smaller than its limit

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::LongArrayBuffer** (p. 2077).

### 6.420.3.18 LongBuffer& decaf::nio::LongBuffer::put (std::vector< long long > & *buffer*) throw ( **BufferOverflowException**, **ReadOnlyBufferException** )

This method transfers the entire content of the given source long longs array long longo this buffer. This is the same as calling put( &buffer[0], 0, buffer.size())

**Parameters:**

*buffer* - The buffer whose contents are copied to this **LongBuffer** (p. 2079)

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there is insufficient space in this buffer

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

### 6.420.3.19 LongBuffer& decaf::nio::LongBuffer::put (const long long \* *buffer*, std::size\_t *offset*, std::size\_t *length*) throw ( **BufferOverflowException**, **ReadOnlyBufferException**, lang::exceptions::NullPointerException )

This method transfers long longs long longo this buffer from the given source array. If there are more long longs to be copied from the array than remain in this buffer, that is, if length > **remaining()** (p. 808), then no long longs are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies length bytes from the given array long longo this buffer, starting at the given offset in the array and at the current position of this buffer. The position of this buffer is then incremented by length.

**Parameters:**

*buffer*- The array from which long longs are to be read

*offset*- The offset within the array of the first long long to be read;

*length* - The number of long longs to be read from the given array

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there is insufficient space in this buffer

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

***NullPointerException*** if the passed buffer is null.

**6.420.3.20** `LongBuffer& decaf::nio::LongBuffer::put (LongBuffer & src)  
throw ( BufferOverflowException, ReadOnlyBufferException,  
lang::exceptions::IllegalArgumentException )`

This method transfers the long longs remaining in the given source buffer long longo this buffer. If there are more long longs remaining in the source buffer than in this buffer, that is, if `src.remaining() > remaining()` (p. 808), then no long longs are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `n = src.remaining()` long longs from the given buffer long longo this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by `n`.

**Parameters:**

*src* - the buffer to take long longs from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

***BufferOverflowException*** (p. 834) - If there is insufficient space in this buffer for the remaining long longs in the source buffer

***IllegalArgumentException*** - If the source buffer is this buffer

***ReadOnlyBufferException*** (p. 2685) - If this buffer is read-only

**6.420.3.21** `virtual LongBuffer* decaf::nio::LongBuffer::slice () const [pure virtual]`

Creates a new **LongBuffer** (p. 2079) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **LongBuffer** (p. 2079) which the caller owns.

Implemented in `decaf::internal::nio::LongArrayBuffer` (p. 2077).

**6.420.3.22** virtual std::string decaf::nio::LongBuffer::toString () const [virtual]**Returns:**

a std::string describing this object

**6.420.3.23** static LongBuffer\* decaf::nio::LongBuffer::wrap (std::vector< long long > & *buffer*) [static]

Wraps the passed STL long long Vector in a **LongBuffer** (p. 2079). The new buffer will be backed by the given long long array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be buffer.size(), its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling vector.resize( N ).

**Returns:**

a new **LongBuffer** (p. 2079) that is backed by buffer, caller owns.

**6.420.3.24** static LongBuffer\* decaf::nio::LongBuffer::wrap (long long \* *array*, std::size\_t *offset*, std::size\_t *length*) throw ( lang::exceptions::NullPointerException ) [static]

Wraps the passed buffer with a new **LongBuffer** (p. 2079). The new buffer will be backed by the given long long array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be array.length, its position will be offset, its limit will be offset + length, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*array* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new **LongBuffer** (p. 2079) that is backed by buffer, caller owns.

The documentation for this class was generated from the following file:

- src/main/decaf/nio/**LongBuffer.h**

## 6.421 activemq::util::LongSequenceGenerator Class Reference

This class is used to generate a sequence of long long values that are incremented each time a new value is requested.

```
#include <src/main/activemq/util/LongSequenceGenerator.h>
```

### Public Member Functions

- **LongSequenceGenerator** ()
- virtual **~LongSequenceGenerator** ()
- long long **getNextSequenceId** ()
- long long **getLastSequenceId** ()

#### 6.421.1 Detailed Description

This class is used to generate a sequence of long long values that are incremented each time a new value is requested. This class is thread safe so the ids can be requested in different threads safely.

#### 6.421.2 Constructor & Destructor Documentation

**6.421.2.1** **activemq::util::LongSequenceGenerator::LongSequenceGenerator** ()

**6.421.2.2** **virtual**  
**activemq::util::LongSequenceGenerator::~~LongSequenceGenerator** ()  
[inline, virtual]

#### 6.421.3 Member Function Documentation

**6.421.3.1** **long long activemq::util::LongSequenceGenerator::getLastSequenceId** ()

**Returns:**

the last id that was generated.

**6.421.3.2** **long long activemq::util::LongSequenceGenerator::getNextSequenceId** ()

**Returns:**

the next id in the sequence.

The documentation for this class was generated from the following file:

- `src/main/activemq/util/LongSequenceGenerator.h`

## 6.422 decaf::net::MalformedURLException Class Reference

#include <src/main/decaf/net/MalformedURLException.h> Inheritance diagram for decaf::net::MalformedURLException:

### Public Member Functions

- **MalformedURLException** () throw ()  
*Default Constructor.*
- **MalformedURLException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **MalformedURLException** (const **MalformedURLException** &ex) throw ()  
*Copy Constructor.*
- **MalformedURLException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **MalformedURLException** (const std::exception \*cause) throw ()  
*Constructor.*
- **MalformedURLException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **MalformedURLException** \* clone () const  
*Clones this exception.*
- virtual ~**MalformedURLException** () throw ()

### 6.422.1 Constructor & Destructor Documentation

**6.422.1.1 decaf::net::MalformedURLException::MalformedURLException () throw ()** [inline]

Default Constructor.

**6.422.1.2 decaf::net::MalformedURLException::MalformedURLException (const Exception & ex) throw ()** [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

### 6.422.1.3 `decaf::net::MalformedURLException::MalformedURLException (const MalformedURLException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

### 6.422.1.4 `decaf::net::MalformedURLException::MalformedURLException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.422.1.5 `decaf::net::MalformedURLException::MalformedURLException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.422.1.6 `decaf::net::MalformedURLException::MalformedURLException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message



**6.422.1.7** `virtual decaf::net::MalformedURLException::~~MalformedURLException  
() throw () [inline, virtual]`

## 6.422.2 Member Function Documentation

**6.422.2.1** `virtual MalformedURLException* de-  
caf::net::MalformedURLException::clone () const  
[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/MalformedURLException.h`

## 6.423 decaf::util::Map< K, V, COMPARATOR > Class Template Reference

**Map** (p. 2094) template that wraps around a std::map to provide a more user-friendly interface and to provide common functions that do not exist in std::map.

#include <src/main/decaf/util/Map.h> Inheritance diagram for decaf::util::Map< K, V, COMPARATOR >:

### Data Structures

- class **Entry**

### Public Member Functions

- **Map** ()  
*Default constructor - does nothing.*
- virtual ~**Map** ()
- virtual bool **equals** (const **Map** &source) const =0  
*Comparison, equality is dependent on the method of determining if the element are equal.*
- virtual void **copy** (const **Map** &source)=0  
*Copies the content of the source map into this map.*
- virtual void **clear** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException )  
*Removes all keys and values from this map.*
- virtual bool **containsKey** (const K &key) const =0  
*Indicates whether or this map contains a value for the given key.*
- virtual bool **containsValue** (const V &value) const =0  
*Indicates whether or this map contains a value for the given value, i.e.*
- virtual bool **isEmpty** () const =0
- virtual std::size\_t **size** () const =0
- virtual V & **get** (const K &key)=0 throw ( lang::exceptions::NoSuchElementException )  
*Gets the value mapped to the specified key in the **Map** (p. 2094).*
- virtual const V & **get** (const K &key) const =0 throw ( lang::exceptions::NoSuchElementException )  
*Gets the value mapped to the specified key in the **Map** (p. 2094).*
- virtual void **put** (const K &key, const V &value)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException )  
*Sets the value for the specified key.*

- virtual void **putAll** (const Map< K, V, COMPARATOR > &other)=0 throw ( decaf::lang::exceptions::UnsupportedOperationException )

*Stores a copy of the Mappings contained in the other **Map** (p. 2094) in this one.*

- virtual V **remove** (const K &key)=0 throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )

*Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.*

- virtual std::vector< K > **keySet** () const =0

*Returns a **Set** (p. 2905) view of the mappings contained in this map.*

- virtual std::vector< V > **values** () const =0

### 6.423.1 Detailed Description

```
template<typename K, typename V, typename COMPARATOR = std::less<K>>
class decaf::util::Map< K, V, COMPARATOR >
```

**Map** (p. 2094) template that wraps around a std::map to provide a more user-friendly interface and to provide common functions that do not exist in std::map.

### 6.423.2 Constructor & Destructor Documentation

**6.423.2.1** template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::Map< K, V, COMPARATOR >::Map () [inline]

Default constructor - does nothing.

**6.423.2.2** template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual decaf::util::Map< K, V, COMPARATOR >::~~Map () [inline, virtual]

### 6.423.3 Member Function Documentation

**6.423.3.1** template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::Map< K, V, COMPARATOR >::clear () throw ( decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]

Removes all keys and values from this map.

#### Exceptions:

*UnsupportedOperationException* if this map is unmodifiable.

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1106), decaf::util::StlMap< K, V, COMPARATOR >

(p. 3034), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1106), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1106), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1106), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1106), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1106), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1106), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3034), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3034), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3034), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3034), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3034), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3034), decaf::util::StlMap< int, Pointer< Command > > (p. 3034), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3034), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3034).

**6.423.3.2** template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::Map< K, V, COMPARATOR >::containsKey (const K & *key*) const [pure virtual]

Indicates whether or this map contains a value for the given key.

#### Parameters:

*key* The key to look up.

#### Returns:

true if this map contains the value, otherwise false.

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1107), decaf::util::StlMap< K, V, COMPARATOR > (p. 3034), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1107), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3034), decaf::util::StlMap< std::string,

WireFormatFactory \* > (p. 3034), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3034), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3034), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3034), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3034), decaf::util::StlMap< int, Pointer< Command > > (p. 3034), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3034), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3034), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3034).

**6.423.3.3** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::Map< K, V, COMPARATOR >::containsValue (const V & value) const` [pure virtual]

Indicates whether or this map contains a value for the given value, i.e. they are equal, this is done by operator== so the types must pass equivalence testing in this manner.

#### Parameters:

*value* The Value to look up.

#### Returns:

true if this map contains the value, otherwise false.

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1107), decaf::util::StlMap< K, V, COMPARATOR > (p. 3035), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1107), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1107), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3035), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3035), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3035), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3035), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3035), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3035), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3035), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3035), decaf::util::StlMap< int, Pointer< Command > > (p. 3035), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3035), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3035), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3035).

**6.423.3.4** `template<typename K, typename V, typename COMPARTOR = std::less<K>> virtual void decaf::util::Map< K, V, COMPARTOR >::copy (const Map< K, V, COMPARTOR > & source) [pure virtual]`

Copies the content of the source map into this map. Erases all existing data in this map.

**Parameters:**

*source* The source object to copy from.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARTOR >` (p. 1107), and `decaf::util::StlMap< K, V, COMPARTOR >` (p. 3035).

**6.423.3.5** `template<typename K, typename V, typename COMPARTOR = std::less<K>> virtual bool decaf::util::Map< K, V, COMPARTOR >::equals (const Map< K, V, COMPARTOR > & source) const [pure virtual]`

Comparison, equality is dependent on the method of determining if the element are equal.

**Parameters:**

*source* - **Map** (p. 2094) to compare to this one.

**Returns:**

true if the **Map** (p. 2094) passed is equal in value to this one.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARTOR >` (p. 1108), and `decaf::util::StlMap< K, V, COMPARTOR >` (p. 3035).

**6.423.3.6** `template<typename K, typename V, typename COMPARTOR = std::less<K>> virtual const V& decaf::util::Map< K, V, COMPARTOR >::get (const K & key) const throw ( lang::exceptions::NoSuchElementException ) [pure virtual]`

Gets the value mapped to the specified key in the **Map** (p. 2094). If there is no element in the map whose key is equivalent to the key provided then a `NoSuchElementException` is thrown.

**Parameters:**

*key* The search key.

**Returns:**

A {const} reference to the value for the given key.

**Exceptions:**

*NoSuchElementException* if the key requests doesn't exist in the **Map** (p. 2094).

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARTOR >` (p. 1108), `decaf::util::StlMap< K, V, COMPARTOR >`

(p. 3036), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1108), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1108), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1108), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1108), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1108), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1108), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3036), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3036), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3036), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3036), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3036), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3036), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3036), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3036), decaf::util::StlMap< int, Pointer< Command > > (p. 3036), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3036), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3036), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3036).

**6.423.3.7** template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual V& decaf::util::Map< K, V, COMPARATOR >::get (const K & *key*) throw ( lang::exceptions::NoSuchElementException ) [pure virtual]

Gets the value mapped to the specified key in the **Map** (p. 2094). If there is no element in the map whose key is equivalent to the key provided then a **NoSuchElementException** is thrown.

#### Parameters:

**key** The search key.

#### Returns:

A reference to the value for the given key.

#### Exceptions:

**NoSuchElementException** if the key requests doesn't exist in the **Map** (p. 2094).

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1109), decaf::util::StlMap< K, V, COMPARATOR > (p. 3036), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1109), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1109), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1109), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR

> (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1109), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3036), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3036), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3036), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3036), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3036), `decaf::util::StlMap< std::string, CachedConsumer * >` (p. 3036), `decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3036), `decaf::util::StlMap< std::string, TransportFactory * >` (p. 3036), `decaf::util::StlMap< int, Pointer< Command > >` (p. 3036), `decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR >` (p. 3036), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3036), and `decaf::util::StlMap< std::string, cms::Topic * >` (p. 3036).

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::equals()`, and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::equals()`.

**6.423.3.8** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::Map< K, V, COMPARATOR >::isEmpty () const [pure virtual]`

#### Returns:

if the **Map** (p. 2094) contains any element or not, TRUE or FALSE

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1109), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3037), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1109), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3037), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3037), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3037), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, CachedConsumer * >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, TransportFactory * >` (p. 3037), `decaf::util::StlMap< int, Pointer< Command > >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3037), and



decaf::util::StlMap< std::string, cms::Topic \* > (p. 3037).

**6.423.3.9** `template<typename K, typename V, typename COMPARATOR  
= std::less<K>> virtual std::vector<K> decaf::util::Map< K, V,  
COMPARATOR >::keySet () const [pure virtual]`

Returns a **Set** (p. 2905) view of the mappings contained in this map. The set is backed by the map, so changes to the map are reflected in the set, and vice-versa. If the map is modified while an iteration over the set is in progress (except through the iterator's own remove operation, or through the setValue operation on a map entry returned by the iterator) the results of the iteration are undefined. The set supports element removal, which removes the corresponding mapping from the map, via the **Iterator.remove** (p. 1833), **Set.remove** (p. 155), **removeAll**, **retainAll** and **clear** operations. It does not support the **add** or **addAll** operations.

#### Returns:

the entire set of keys in this map as a std::vector.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1109), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3037), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1109), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1109), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3037), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3037), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3037), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, CachedConsumer * >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, TransportFactory * >` (p. 3037), `decaf::util::StlMap< int, Pointer< Command > >` (p. 3037), `decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR >` (p. 3037), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3037), and `decaf::util::StlMap< std::string, cms::Topic * >` (p. 3037).

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::equals()`, and `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::equals()`.

**6.423.3.10** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::Map< K, V, COMPARATOR >::put (const K & key, const V & value) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Sets the value for the specified key.

**Parameters:**

*key* The target key.

*value* The value to be set.

**Exceptions:**

*UnsupportedOperationException* if this map is unmodifiable.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1111), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3038), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1111), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1111), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1111), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1111), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1111), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1111), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3038), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3038), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3038), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3038), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3038), `decaf::util::StlMap< std::string, CachedConsumer * >` (p. 3038), `decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3038), `decaf::util::StlMap< std::string, TransportFactory * >` (p. 3038), `decaf::util::StlMap< int, Pointer< Command > >` (p. 3038), `decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR >` (p. 3038), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3038), and `decaf::util::StlMap< std::string, cms::Topic * >` (p. 3038).

**6.423.3.11** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::Map< K, V, COMPARATOR >::putAll (const Map< K, V, COMPARATOR > & other) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Stores a copy of the Mappings contained in the other **Map** (p. 2094) in this one.

**Parameters:**

*other* A **Map** (p. 2094) instance whose elements are to all be inserted in this **Map** (p. 2094).

**Exceptions:**

***UnsupportedOperationException*** If the implementing class does not support the putAll operation.

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p.1111), decaf::util::StlMap< K, V, COMPARATOR > (p.3039), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p.1111), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p.1111), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p.1111), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p.1111), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p.1111), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p.1111), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p.3039), decaf::util::StlMap< std::string, WireFormatFactory \* > (p.3039), decaf::util::StlMap< std::string, PrimitiveValueNode > (p.3039), decaf::util::StlMap< std::string, cms::Queue \* > (p.3039), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p.3039), decaf::util::StlMap< std::string, CachedConsumer \* > (p.3039), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p.3039), decaf::util::StlMap< std::string, TransportFactory \* > (p.3039), decaf::util::StlMap< int, Pointer< Command > > (p.3039), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p.3039), decaf::util::StlMap< std::string, CachedProducer \* > (p.3039), and decaf::util::StlMap< std::string, cms::Topic \* > (p.3039).

```
6.423.3.12  template<typename K, typename V, typename COMPARATOR
            = std::less<K>> virtual V decaf::util::Map< K, V,
            COMPARATOR >::remove (const K & key) throw
            ( decaf::lang::exceptions::NoSuchElementException,
            decaf::lang::exceptions::UnsupportedOperationException ) [pure
            virtual]
```

Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.

**Parameters:**

**key** The search key.

**Returns:**

a copy of the element that was previously mapped to the given key

**Exceptions:**

***NoSuchElementException*** if this key is not in the **Map** (p.2094).

***UnsupportedOperationException*** if this map is unmodifiable.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1113), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3039), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1113), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1113), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3039), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3039), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3039), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3039), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3039), `decaf::util::StlMap< std::string, CachedConsumer * >` (p. 3039), `decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3039), `decaf::util::StlMap< std::string, TransportFactory * >` (p. 3039), `decaf::util::StlMap< int, Pointer< Command > >` (p. 3039), `decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR >` (p. 3039), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3039), and `decaf::util::StlMap< std::string, cms::Topic * >` (p. 3039).

**6.423.3.13** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual std::size_t decaf::util::Map< K, V, COMPARATOR >::size () const [pure virtual]`

#### Returns:

The number of elements (key/value pairs) in this map.

Implemented in `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1114), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3040), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1114), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >` (p. 1114), `decaf::util::StlMap< cms::Session *, SessionResolver * >` (p. 3040), `decaf::util::StlMap< std::string, WireFormatFactory * >` (p. 3040), `decaf::util::StlMap< std::string, PrimitiveValueNode >` (p. 3040), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3040), `decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, commands::ProducerId::COMPARATOR >` (p. 3040), `decaf::util::StlMap< std::string,`

CachedConsumer \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3040), decaf::util::StlMap< int, Pointer< Command > > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3040), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3040).

**6.423.3.14** `template<typename K, typename V, typename COMPARATOR  
= std::less<K>> virtual std::vector<V> decaf::util::Map< K, V,  
COMPARATOR >::values () const [pure virtual]`

#### Returns:

the entire set of values in this map as a std::vector.

Implemented in decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1115), decaf::util::StlMap< K, V, COMPARATOR > (p. 3040), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1115), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3040), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3040), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3040), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3040), decaf::util::StlMap< int, Pointer< Command > > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3040), and decaf::util::StlMap< std::string, cms::Topic \* > (p. 3040).

The documentation for this class was generated from the following file:

- src/main/decaf/util/Map.h

## 6.424 cms::MapMessage Class Reference

A **MapMessage** (p. 2106) object is used to send a set of name-value pairs.

#include <src/main/cms/MapMessage.h> Inheritance diagram for cms::MapMessage:

### Public Member Functions

- virtual **~MapMessage** ()
- virtual std::vector< std::string > **getMapNames** () const =0 throw ( CMSEException )  
*Returns an Enumeration of all the names in the **MapMessage** (p. 2106) object.*
- virtual bool **itemExists** (const std::string &name) const =0 throw ( CMSEException )  
*Indicates whether an item exists in this **MapMessage** (p. 2106) object.*
- virtual bool **getBoolean** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Boolean value of the Specified name.*
- virtual void **setBoolean** (const std::string &name, bool value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a boolean value with the specified name into the Map.*
- virtual unsigned char **getByte** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Byte value of the Specified name.*
- virtual void **setByte** (const std::string &name, unsigned char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Byte value with the specified name into the Map.*
- virtual std::vector< unsigned char > **getBytes** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Bytes value of the Specified name.*
- virtual void **setBytes** (const std::string &name, const std::vector< unsigned char > &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Bytes value with the specified name into the Map.*
- virtual char **getChar** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )  
*Returns the Char value of the Specified name.*
- virtual void **setChar** (const std::string &name, char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets a Char value with the specified name into the Map.*
- virtual double **getDouble** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the Double value of the Specified name.*

- virtual void **setDouble** (const std::string &name, double value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a Double value with the specified name into the Map.*

- virtual float **getFloat** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the Float value of the Specified name.*

- virtual void **setFloat** (const std::string &name, float value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a Float value with the specified name into the Map.*

- virtual int **getInt** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the Int value of the Specified name.*

- virtual void **setInt** (const std::string &name, int value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a Int value with the specified name into the Map.*

- virtual long long **getLong** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the Long value of the Specified name.*

- virtual void **setLong** (const std::string &name, long long value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a Long value with the specified name into the Map.*

- virtual short **getShort** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the Short value of the Specified name.*

- virtual void **setShort** (const std::string &name, short value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a Short value with the specified name into the Map.*

- virtual std::string **getString** (const std::string &name) const =0 throw ( cms::MessageFormatException, cms::CMSEException )

*Returns the String value of the Specified name.*

- virtual void **setString** (const std::string &name, const std::string &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Sets a String value with the specified name into the Map.*

### 6.424.1 Detailed Description

A **MapMessage** (p.2106) object is used to send a set of name-value pairs. The names are String objects, and the values are primitive data types in the Java programming language. The

names must have a value that is not null, and not an empty string. The entries can be accessed sequentially or randomly by name. The order of the entries is undefined. **MapMessage** (p. 2106) inherits from the **Message** (p. 2163) interface and adds a message body that contains a Map.

When a client receives a **MapMessage** (p. 2106), it is in read-only mode. If a client attempts to write to the message at this point, a **MessageNotWriteableException** (p. 2331) is thrown. To place the **MapMessage** (p. 2106) back into a state where it can be read from and written to, call the `clearBody` method.

**MapMessage** (p. 2106) objects support the following conversion table. The marked cases must be supported. The unmarked cases must throw a **CMSEException** (p. 1031). The String-to-primitive conversions may throw a **MessageFormatException** (p. 2278) if the primitive's `valueOf()` method does not accept it as a valid String representation of the primitive.

A value written as the row type can be read as the column type.

	boolean	byte	short	char	int	long	float	double	String	byte[]
boolean	X									X
byte		X	X		X	X				X
short			X		X	X				X
char				X						X
int					X	X				X
long						X				X
float							X	X		X
double								X		X
String	X	X	X		X	X	X	X	X	
byte[]										X

Since:

1.0

## 6.424.2 Constructor & Destructor Documentation

**6.424.2.1** `virtual cms::MapMessage::~~MapMessage () [inline, virtual]`

## 6.424.3 Member Function Documentation

**6.424.3.1** `virtual bool cms::MapMessage::getBoolean (const std::string & name)  
const throw ( cms::MessageFormatException, cms::CMSEException )  
[pure virtual]`

Returns the Boolean value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

**CMSEException** (p. 1031) - if the operation fails due to an internal error.

**MessageFormatException** - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 312).



**6.424.3.2** `virtual unsigned char cms::MapMessage::getBytes (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [pure virtual]`

Returns the Byte value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 313).

**6.424.3.3** `virtual std::vector<unsigned char> cms::MapMessage::getBytes (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [pure virtual]`

Returns the Bytes value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 313).

**6.424.3.4** `virtual char cms::MapMessage::getChar (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [pure virtual]`

Returns the Char value of the Specified name.

**Parameters:**

*name* name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 313).

**6.424.3.5** virtual double cms::MapMessage::getDouble (const std::string & *name*) const throw ( cms::MessageFormatException, cms::CMSEException ) [pure virtual]

Returns the Double value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 314).

**6.424.3.6** virtual float cms::MapMessage::getFloat (const std::string & *name*) const throw ( cms::MessageFormatException, cms::CMSEException ) [pure virtual]

Returns the Float value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 314).

**6.424.3.7** virtual int cms::MapMessage::getInt (const std::string & *name*) const throw ( cms::MessageFormatException, cms::CMSEException ) [pure virtual]

Returns the Int value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 314).

**6.424.3.8**    `virtual long long cms::MapMessage::getLong (const std::string & name)  
const throw ( cms::MessageFormatException, cms::CMSException )  
[pure virtual]`

Returns the Long value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 315).

**6.424.3.9**    `virtual std::vector< std::string > cms::MapMessage::getMapNames ()  
const throw ( CMSException ) [pure virtual]`

Returns an Enumeration of all the names in the `MapMessage` (p. 2106) object.

**Returns:**

STL Vector of String values, each of which is the name of an item in the `MapMessage` (p. 2106)

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 315).

**6.424.3.10**    `virtual short cms::MapMessage::getShort (const std::string & name)  
const throw ( cms::MessageFormatException, cms::CMSException )  
[pure virtual]`

Returns the Short value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 316).

**6.424.3.11** `virtual std::string cms::MapMessage::getString (const std::string & name) const throw ( cms::MessageFormatException, cms::CMSException ) [pure virtual]`

Returns the String value of the Specified name.

**Parameters:**

*name* Name of the value to fetch from the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 316).

**6.424.3.12** `virtual bool cms::MapMessage::itemExists (const std::string & name) const throw ( CMSException ) [pure virtual]`

Indicates whether an item exists in this `MapMessage` (p. 2106) object.

**Parameters:**

*name* String name of the Object in question

**Returns:**

boolean value indicating if the name is in the map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 316).

**6.424.3.13** `virtual void cms::MapMessage::setBoolean (const std::string & name, bool value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Sets a boolean value with the specified name into the Map.

**Parameters:**

*name* the name of the boolean

*value* the boolean value to set in the Map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWritableException* - if the `Message` (p. 2163) is in Read-only Mode.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 317).

**6.424.3.14** `virtual void cms::MapMessage::setByte (const std::string & name, unsigned char value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [pure virtual]

Sets a Byte value with the specified name into the Map.

**Parameters:**

*name* the name of the Byte

*value* the Byte value to set in the Map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 317).

**6.424.3.15** `virtual void cms::MapMessage::setBytes (const std::string & name, const std::vector< unsigned char > & value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [pure virtual]

Sets a Bytes value with the specified name into the Map.

**Parameters:**

*name* The name of the Bytes

*value* The Bytes value to set in the Map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 318).

**6.424.3.16** `virtual void cms::MapMessage::setChar (const std::string & name, char value) throw ( cms::MessageNotWriteableException, cms::CMSException )` [pure virtual]

Sets a Char value with the specified name into the Map.

**Parameters:**

*name* the name of the Char

*value* the Char value to set in the Map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 318).

**6.424.3.17** virtual void cms::MapMessage::setDouble (const std::string & *name*, double *value*) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]

Sets a Double value with the specified name into the Map.

**Parameters:**

*name* The name of the Double

*value* The Double value to set in the Map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 318).

**6.424.3.18** virtual void cms::MapMessage::setFloat (const std::string & *name*, float *value*) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]

Sets a Float value with the specified name into the Map.

**Parameters:**

*name* The name of the Float

*value* The Float value to set in the Map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 319).

**6.424.3.19** virtual void cms::MapMessage::setInt (const std::string & *name*, int *value*) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]

Sets a Int value with the specified name into the Map.

**Parameters:**

*name* The name of the Int

*value* The Int value to set in the Map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 319).

**6.424.3.20** `virtual void cms::MapMessage::setLong (const std::string & name, long long value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Sets a Long value with the specified name into the Map.

**Parameters:**

*name* The name of the Long

*value* The Long value to set in the Map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 319).

**6.424.3.21** `virtual void cms::MapMessage::setShort (const std::string & name, short value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Sets a Short value with the specified name into the Map.

**Parameters:**

*name* The name of the Short

*value* The Short value to set in the Map

**Exceptions:**

*CMSEException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 320).

**6.424.3.22** `virtual void cms::MapMessage::setString (const std::string & name,  
const std::string & value) throw ( cms::MessageNotWriteableException,  
cms::CMSException )` [pure virtual]

Sets a String value with the specified name into the Map.

**Parameters:**

*name* The name of the String

*value* The String value to set in the Map

**Exceptions:**

*CMSException* (p. 1031) - if the operation fails due to an internal error.

*MessageNotWriteableException* (p. 2331) - if the **Message** (p. 2163) is in Read-only Mode.

Implemented in **activemq::commands::ActiveMQMapMessage** (p. 320).

The documentation for this class was generated from the following file:

- `src/main/cms/MapMessage.h`



## 6.425 decaf::util::logging::MarkBlockLogger Class Reference

Defines a class that can be used to mark the entry and exit from scoped blocks.

```
#include <src/main/decaf/util/logging/MarkBlockLogger.h>
```

### Public Member Functions

- **MarkBlockLogger** (**Logger** \*logger, const std::string &blockName)  
*Constructor - Marks Block entry.*
- virtual ~**MarkBlockLogger** ()

### 6.425.1 Detailed Description

Defines a class that can be used to mark the entry and exit from scoped blocks. Create an instance of this class at the start of a scoped block, passing it the logger to use and the name of the block. The block entry and exit will be marked using the scope name, logger to the logger at the MARKBLOCK log level.

### 6.425.2 Constructor & Destructor Documentation

#### 6.425.2.1 decaf::util::logging::MarkBlockLogger::MarkBlockLogger (Logger \*logger, const std::string & blockName) [inline]

Constructor - Marks Block entry.

#### Parameters:

*logger* **Logger** (p.2028) to use  
*blockName* Block name

#### 6.425.2.2 virtual decaf::util::logging::MarkBlockLogger::~~MarkBlockLogger () [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/MarkBlockLogger.h

## 6.426 activemq::wireformat::MarshalAware Class Reference

#include <src/main/activemq/wireformat/MarshalAware.h> Inheritance diagram for activemq::wireformat::MarshalAware:

### Public Member Functions

- virtual `~MarshalAware ()`
- virtual `bool isMarshalAware () const =0`  
*Determine if the class implementing this interface is really wanting to be told about marshaling.*
- virtual `void beforeMarshal (WireFormat *wireFormat)=0 throw ( decaf::io::IOException )`  
*Called before marshaling is started to prepare the object to be marshaled.*
- virtual `void afterMarshal (WireFormat *wireFormat)=0 throw ( decaf::io::IOException )`  
*Called after marshaling is started to cleanup the object being marshaled.*
- virtual `void beforeUnmarshal (WireFormat *wireFormat)=0 throw ( decaf::io::IOException )`  
*Called before unmarshaling is started to prepare the object to be unmarshaled.*
- virtual `void afterUnmarshal (WireFormat *wireFormat)=0 throw ( decaf::io::IOException )`  
*Called after unmarshaling is started to cleanup the object being unmarshaled.*
- virtual `void setMarshaledForm (WireFormat *wireFormat, const std::vector< char > &data)=0`  
*Called to set the data to this object that will contain the objects marshaled form.*
- virtual `std::vector< unsigned char > getMarshaledForm (WireFormat *wireFormat)=0`  
*Called to get the data to this object that will contain the objects marshaled form.*

### 6.426.1 Constructor & Destructor Documentation

- 6.426.1.1 `virtual activemq::wireformat::MarshalAware::~~MarshalAware ()`  
`[inline, virtual]`

### 6.426.2 Member Function Documentation

- 6.426.2.1 `virtual void activemq::wireformat::MarshalAware::afterMarshal (WireFormat * wireFormat) throw ( decaf::io::IOException )` `[pure virtual]`

Called after marshaling is started to cleanup the object being marshaled.

**Parameters:**

*wireFormat* - the wireformat object to control marshaling

**6.426.2.2** virtual void activemq::wireformat::MarshalAware::afterUnmarshal  
(WireFormat \* *wireFormat*) throw ( decaf::io::IOException ) [pure  
virtual]

Called after unmarshaling is started to cleanup the object being unmarshaled.

**Parameters:**

*wireFormat* - the wireformat object to control unmarshaling

**6.426.2.3** virtual void activemq::wireformat::MarshalAware::beforeMarshal  
(WireFormat \* *wireFormat*) throw ( decaf::io::IOException ) [pure  
virtual]

Called before marshaling is started to prepare the object to be marshaled.

**Parameters:**

*wireFormat* - the wireformat object to control marshaling

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 311), and `activemq::commands::ActiveMQTextMessage` (p. 574).

**6.426.2.4** virtual void activemq::wireformat::MarshalAware::beforeUnmarshal  
(WireFormat \* *wireFormat*) throw ( decaf::io::IOException ) [pure  
virtual]

Called before unmarshaling is started to prepare the object to be unmarshaled.

**Parameters:**

*wireFormat* - the wireformat object to control unmarshaling

**6.426.2.5** virtual std::vector<unsigned char> ac-  
tivemq::wireformat::MarshalAware::getMarshaledForm  
(WireFormat \* *wireFormat*) [pure virtual]

Called to get the data to this object that will contain the objects marshaled form.

**Parameters:**

*wireFormat* - the wireformat object to control unmarshaling

**Returns:**

buffer that holds the objects data.

#### 6.426.2.6 `virtual bool activemq::wireformat::MarshalAware::isMarshalAware ()` `const [pure virtual]`

Determine if the class implementing this interface is really wanting to be told about marshaling. Normally if you didn't want to be marshal aware you just wouldn't implement this interface but since this is C++ and we don't have true interfaces we need a flat inheritance hierarchy, so we always implement this.

##### Returns:

true if this class cares about marshaling.

Implemented in `activemq::commands::ActiveMQMapMessage` (p. 316), `activemq::commands::BaseDataStructure` (p. 717), `activemq::commands::Message` (p. 2155), and `activemq::commands::WireFormatInfo` (p. 3374).

#### 6.426.2.7 `virtual void activemq::wireformat::MarshalAware::setMarshaledForm` `(WireFormat * wireFormat, const std::vector< char > & data) [pure virtual]`

Called to set the data to this object that will contain the objects marshaled form.

##### Parameters:

*wireFormat* - the wireformat object to control unmarshaling

*data* - vector of object binary data

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/MarshalAware.h`

## 6.427 activemq::wireformat::openwire::marshal::v2::MarshallerFactory Class Reference

Used to create marshallers for a specific version of the wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/v2/MarshallerFactory.h>
```

### Public Member Functions

- virtual `~MarshallerFactory()`
- virtual void `configure (OpenWireFormat *format)`

#### 6.427.1 Detailed Description

Used to create marshallers for a specific version of the wire protocol. NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Groovy scripts in the activemq-openwire-generator module

#### 6.427.2 Constructor & Destructor Documentation

- 6.427.2.1 virtual  
activemq::wireformat::openwire::marshal::v2::MarshallerFactory::~~MarshallerFactory()  
[inline, virtual]

#### 6.427.3 Member Function Documentation

- 6.427.3.1 virtual void ac-  
tivemq::wireformat::openwire::marshal::v2::MarshallerFactory::configure  
(OpenWireFormat \* *format*) [virtual]

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/MarshallerFactory.h`

## 6.428 activemq::wireformat::openwire::marshal::v4::MarshallerFactory Class Reference

Used to create marshallers for a specific version of the wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/v4/MarshallerFactory.h>
```

### Public Member Functions

- virtual `~MarshallerFactory()`
- virtual void `configure(OpenWireFormat *format)`

#### 6.428.1 Detailed Description

Used to create marshallers for a specific version of the wire protocol. NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Groovy scripts in the activemq-openwire-generator module

#### 6.428.2 Constructor & Destructor Documentation

- 6.428.2.1** virtual  
`activemq::wireformat::openwire::marshal::v4::MarshallerFactory::~MarshallerFactory()` [inline, virtual]

#### 6.428.3 Member Function Documentation

- 6.428.3.1** virtual void `activemq::wireformat::openwire::marshal::v4::MarshallerFactory::configure(OpenWireFormat * format)` [virtual]

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/MarshallerFactory.h`

## 6.429 activemq::wireformat::openwire::marshal::v1::MarshallerFactory Class Reference

Used to create marshallers for a specific version of the wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/v1/MarshallerFactory.h>
```

### Public Member Functions

- virtual `~MarshallerFactory()`
- virtual void `configure (OpenWireFormat *format)`

#### 6.429.1 Detailed Description

Used to create marshallers for a specific version of the wire protocol. NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Groovy scripts in the activemq-openwire-generator module

#### 6.429.2 Constructor & Destructor Documentation

- 6.429.2.1 virtual  
activemq::wireformat::openwire::marshal::v1::MarshallerFactory::~~MarshallerFactory  
( ) [inline, virtual]

#### 6.429.3 Member Function Documentation

- 6.429.3.1 virtual void ac-  
tivemq::wireformat::openwire::marshal::v1::MarshallerFactory::configure  
(OpenWireFormat \* *format*) [virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**MarshallerFactory.h**

## 6.430 activemq::wireformat::openwire::marshal::v3::MarshallerFactory Class Reference

Used to create marshallers for a specific version of the wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/v3/MarshallerFactory.h>
```

### Public Member Functions

- virtual `~MarshallerFactory()`
- virtual void `configure(OpenWireFormat *format)`

#### 6.430.1 Detailed Description

Used to create marshallers for a specific version of the wire protocol. NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Groovy scripts in the activemq-openwire-generator module

#### 6.430.2 Constructor & Destructor Documentation

- 6.430.2.1** virtual  
`activemq::wireformat::openwire::marshal::v3::MarshallerFactory::~MarshallerFactory()` [inline, virtual]

#### 6.430.3 Member Function Documentation

- 6.430.3.1** virtual void `activemq::wireformat::openwire::marshal::v3::MarshallerFactory::configure(OpenWireFormat * format)` [virtual]

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/MarshallerFactory.h`



## 6.431 activemq::wireformat::openwire::marshal::v5::MarshallerFactory Class Reference

Used to create marshallers for a specific version of the wire protocol.

```
#include <src/main/activemq/wireformat/openwire/marshal/v5/MarshallerFactory.h>
```

### Public Member Functions

- virtual `~MarshallerFactory()`
- virtual void `configure (OpenWireFormat *format)`

#### 6.431.1 Detailed Description

Used to create marshallers for a specific version of the wire protocol. NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Groovy scripts in the activemq-openwire-generator module

#### 6.431.2 Constructor & Destructor Documentation

- 6.431.2.1 virtual  
activemq::wireformat::openwire::marshal::v5::MarshallerFactory::~MarshallerFactory  
( ) [inline, virtual]

#### 6.431.3 Member Function Documentation

- 6.431.3.1 virtual void ac-  
tivemq::wireformat::openwire::marshal::v5::MarshallerFactory::configure  
(OpenWireFormat \* *format*) [virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**MarshallerFactory.h**

## 6.432 decaf::lang::Math Class Reference

The class `Math` (p. 2126) contains methods for performing basic numeric operations such as the elementary exponential, logarithm, square root, and trigonometric functions.

```
#include <src/main/decaf/lang/Math.h>
```

### Public Member Functions

- `Math ()`
- `virtual ~Math ()`

### Static Public Member Functions

- static int **abs** (int value)  
*Returns the absolute value of an int value.*
- static long long **abs** (long long value)  
*Returns the absolute value of an long long value.*
- static float **abs** (float value)  
*Returns the absolute value of a float value.*
- static double **abs** (double value)  
*Returns the absolute value of a double value.*
- static double **sqrt** (double value)  
*Returns the arc cosine of an angle, in the range of 0.0 through pi.*
- static double **pow** (double base, double exp)  
*Returns the value of the first argument raised to the power of the second argument.*
- static short **min** (short a, short b)  
*Returns the double value that is closest in value to the argument and is equal to a mathematical integer.*
- static int **min** (int a, int b)  
*Returns the smaller of two *int* values.*
- static int **min** (unsigned int a, unsigned int b)  
*Returns the smaller of two *unsigned int* values.*
- static long long **min** (long long a, long long b)  
*Returns the smaller of two *long long* values.*
- static float **min** (float a, float b)  
*Returns the smaller of two float values.*
- static double **min** (double a, double b)  
*Returns the smaller of two double values.*

- static short **max** (short a, short b)  
*Returns the larger of two **short** values.*
- static int **max** (int a, int b)  
*Returns the larger of two **int** values.*
- static long long **max** (long long a, long long b)  
*Returns the larger of two **long long** values.*
- static float **max** (float a, float b)  
*Returns the greater of two float values.*
- static double **max** (double a, double b)  
*Returns the greater of two double values.*
- static double **ceil** (double value)  
*Returns the natural logarithm (base e) of a double value.*
- static double **floor** (double value)  
*Returns the largest (closest to positive infinity) double value that is less than or equal to the argument and is equal to a mathematical integer.*
- static int **round** (float value)  
*Returns the closest int to the argument.*
- static long long **round** (double value)  
*Returns the closest long long to the argument.*
- static double **random** ()  
*Computes the remainder operation on two arguments as prescribed by the IEEE 754 standard.*
- static float **signum** (float value)  
*Returns Euler's number e raised to the power of a double value.*
- static double **signum** (double value)  
*Returns the signum function of the argument; zero if the argument is zero, 1.0f if the argument is greater than zero, -1.0f if the argument is less than zero.*
- static double **toRadians** (double angdeg)  
*Returns the measure in radians of the supplied degree angle.*
- static double **toDegrees** (double angrad)  
*Returns the measure in degrees of the supplied radian angle.*

## Static Public Attributes

- static const double **E**
- static const double **PI**

### 6.432.1 Detailed Description

The class `Math` (p. 2126) contains methods for performing basic numeric operations such as the elementary exponential, logarithm, square root, and trigonometric functions.

### 6.432.2 Constructor & Destructor Documentation

**6.432.2.1** `decaf::lang::Math::Math ()` [inline]

**6.432.2.2** `virtual decaf::lang::Math::~~Math ()` [inline, virtual]

### 6.432.3 Member Function Documentation

**6.432.3.1** `static double decaf::lang::Math::abs (double value)` [static]

Returns the absolute value of a double value. If the argument is not negative, the argument is returned. If the argument is negative, the negation of the argument is returned. Special cases:

- o If the argument is positive zero or negative zero, the result is positive zero.
- o If the argument is infinite, the result is positive infinity.
- o If the argument is NaN, the result is NaN.

In other words, the result is the same as the value of the expression: `Double::longBitsToDouble` (p. 1543)( `0x7fffffffffULL & Double::doubleToLongBits( value )` )

#### Parameters:

*value* - the value to return the abs of

#### Returns:

the value if positive, otherwise the negative of value

**6.432.3.2** `static float decaf::lang::Math::abs (float value)` [static]

Returns the absolute value of a float value. If the argument is not negative, the argument is returned. If the argument is negative, the negation of the argument is returned. Special cases:

- o If the argument is positive zero or negative zero, the result is positive zero.
- o If the argument is infinite, the result is positive infinity.
- o If the argument is NaN, the result is NaN.

In other words, the result is the same as the value of the expression: `Float::intBitsToFloat` (p. 1652)( `0x7fffffff & Float::floatToIntBits( value )` )

#### Parameters:

*value* - the value to return the abs of

#### Returns:

the value if positive, otherwise the negative of value

**6.432.3.3** `static long long decaf::lang::Math::abs (long long value)` [inline, static]

Returns the absolute value of an long long value. If the argument is not negative, the argument is returned. If the argument is negative, the negation of the argument is returned.

**Parameters:**

*value* - the value to return the abs of

**Returns:**

the value if positive, otherwise the negative of value

**6.432.3.4 static int decaf::lang::Math::abs (int *value*) [inline, static]**

Returns the absolute value of an int value. If the argument is not negative, the argument is returned. If the argument is negative, the negation of the argument is returned.

**Parameters:**

*value* - the value to return the abs of

**Returns:**

the value if positive, otherwise the negative of value

**6.432.3.5 static double decaf::lang::Math::ceil (double *value*) [static]**

Returns the natural logarithm (base e) of a double value. Special cases:

o If the argument is NaN or less than zero, then the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is positive zero or negative zero, then the result is negative infinity.

**Parameters:**

*value* the value to compute the natural log of.

**Returns:**

the natural log of value. Returns the base 10 logarithm of a double value. Special cases:

o If the argument is NaN or less than zero, then the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is positive zero or negative zero, then the result is negative infinity. o If the argument is equal to 10<sup>n</sup> for integer n, then the result is n.

**Parameters:**

*value* - the value to operate on

**Returns:**

the long base 10 of value Returns the natural logarithm of the sum of the argument and 1. Note that for small values x, the result of log1p(x) is much closer to the true result of ln(1 + x) than the floating-point evaluation of log(1.0+x).

Special cases:

o If the argument is NaN or less than -1, then the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is negative one, then the result is negative infinity. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the value to operate on

**Returns:**

the the value  $\ln(x + 1)$ , the natural log of  $x + 1$  Returns the smallest (closest to negative infinity) double value that is greater than or equal to the argument and is equal to a mathematical integer. Special cases:

o If the argument value is already equal to a mathematical integer, then the result is the same as the argument. o If the argument is NaN or an infinity or positive zero or negative zero, then the result is the same as the argument. o If the argument value is less than zero but greater than -1.0, then the result is negative zero.

Note that the value of `Math.ceil(x)` is exactly the value of `-Math.floor(-x)`.

**Parameters:**

*value* - the value to find the ceiling of

**Returns:**

the smallest (closest to negative infinity) floating-point value that is greater than or equal to the argument and is equal to a mathematical integer.

**6.432.3.6 static double decaf::lang::Math::floor (double *value*) [static]**

Returns the largest (closest to positive infinity) double value that is less than or equal to the argument and is equal to a mathematical integer. Special cases:

o If the argument value is already equal to a mathematical integer, then the result is the same as the argument. o If the argument is NaN or an infinity or positive zero or negative zero, then the result is the same as the argument.

**Parameters:**

*value* - the value to find the floor of

**Returns:**

the largest (closest to positive infinity) floating-point value that less than or equal to the argument and is equal to a mathematical integer.

**6.432.3.7 static double decaf::lang::Math::max (double *a*, double *b*) [static]**

Returns the greater of two double values. That is, the result is the argument closer to positive infinity. If the arguments have the same value, the result is that same value. If either value is NaN, then the result is NaN. Unlike the numerical comparison operators, this method considers negative zero to be strictly smaller than positive zero. If one argument is positive zero and the other negative zero, the result is positive zero.

**Parameters:**

*a* - an argument.

*b* - another argument.

**Returns:**

the larger of *a* and *b*.

**6.432.3.8 static float decaf::lang::Math::max (float *a*, float *b*) [static]**

Returns the greater of two float values. That is, the result is the argument closer to positive infinity. If the arguments have the same value, the result is that same value. If either value is NaN, then the result is NaN. Unlike the numerical comparison operators, this method considers negative zero to be strictly smaller than positive zero. If one argument is positive zero and the other negative zero, the result is positive zero.

**Parameters:**

*a* - an argument.

*b* - another argument.

**Returns:**

the larger of *a* and *b*.

**6.432.3.9 static long long decaf::lang::Math::max (long long *a*, long long *b*) [inline, static]**

Returns the larger of two long long values. That is, the result the argument closer to the value of `Long::MAX_VALUE` (p.2070). If the arguments have the same value, the result is that same value.

**Parameters:**

*a* - an argument.

*b* - another argument.

**Returns:**

the larger of *a* and *b*.

**6.432.3.10 static int decaf::lang::Math::max (int *a*, int *b*) [inline, static]**

Returns the larger of two int values. That is, the result the argument closer to the value of `Integer::MAX_VALUE` (p.1775). If the arguments have the same value, the result is that same value.

**Parameters:**

*a* - an argument.

*b* - another argument.

**Returns:**

the larger of *a* and *b*.

**6.432.3.11 static short decaf::lang::Math::max (short *a*, short *b*) [inline, static]**

Returns the larger of two `short` values. That is, the result the argument closer to the value of `Short::MAX_VALUE` (p. 2914). If the arguments have the same value, the result is that same value.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the larger of *a* and *b*.

**6.432.3.12 static double decaf::lang::Math::min (double *a*, double *b*) [static]**

Returns the smaller of two double values. That is, the result is the value closer to negative infinity. If the arguments have the same value, the result is that same value. If either value is NaN, then the result is NaN. Unlike the numerical comparison operators, this method considers negative zero to be strictly smaller than positive zero. If one argument is positive zero and the other is negative zero, the result is negative zero.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the smaller of *a* and *b*.

**6.432.3.13 static float decaf::lang::Math::min (float *a*, float *b*) [static]**

Returns the smaller of two float values. That is, the result is the value closer to negative infinity. If the arguments have the same value, the result is that same value. If either value is NaN, then the result is NaN. Unlike the numerical comparison operators, this method considers negative zero to be strictly smaller than positive zero. If one argument is positive zero and the other is negative zero, the result is negative zero.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the smaller of *a* and *b*.



**6.432.3.14 static long long decaf::lang::Math::min (long long *a*, long long *b*)**  
[inline, static]

Returns the smaller of two `long long` values. That is, the result the argument closer to the value of `Long::MIN_VALUE` (p.2070). If the arguments have the same value, the result is that same value.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the smaller of *a* and *b*.

**6.432.3.15 static int decaf::lang::Math::min (unsigned int *a*, unsigned int *b*)**  
[inline, static]

Returns the smaller of two `unsigned int` values. That is, the result the argument closer to the value of `Integer::MIN_VALUE` (p.1776). If the arguments have the same value, the result is that same value.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the smaller of *a* and *b*.

**6.432.3.16 static int decaf::lang::Math::min (int *a*, int *b*)** [inline, static]

Returns the smaller of two `int` values. That is, the result the argument closer to the value of `Integer::MIN_VALUE` (p.1776). If the arguments have the same value, the result is that same value.

**Parameters:**

- a* - an argument.
- b* - another argument.

**Returns:**

the smaller of *a* and *b*.

**6.432.3.17 static short decaf::lang::Math::min (short *a*, short *b*)** [inline, static]

Returns the double value that is closest in value to the argument and is equal to a mathematical integer. If two double values that are mathematical integers are equally close, the result is the integer value that is even. Special cases:

o If the argument value is already equal to a mathematical integer, then the result is the same as the argument. o If the argument is NaN or an infinity or positive zero or negative zero, then the result is the same as the argument.

**Parameters:**

*value* - the value to round to the nearest integer

**Returns:**

the rounded value Returns the smaller of two short values. That is, the result is the argument closer to the value of `decaf::lang::Short::MIN_VALUE` (p. 2914). If the arguments have the same value, the result is that same value.

**Parameters:**

*a* - an argument.

*b* - another argument.

**Returns:**

the smaller of *a* and *b*.

### 6.432.3.18 `static double decaf::lang::Math::pow (double base, double exp)` [static]

Returns the value of the first argument raised to the power of the second argument. Special cases:

o If the second argument is positive or negative zero, then the result is 1.0. o If the second argument is 1.0, then the result is the same as the first argument. o If the second argument is NaN, then the result is NaN. o If the first argument is NaN and the second argument is nonzero, then the result is NaN.

**Parameters:**

*base* - the base

*exp* - the exponent

**Returns:**

the base raised to the power of *exp*.

### 6.432.3.19 `static double decaf::lang::Math::random ()` [static]

Computes the remainder operation on two arguments as prescribed by the IEEE 754 standard. The remainder value is mathematically equal to  $f1 - f2 \times n$ , where *n* is the mathematical integer closest to the exact mathematical value of the quotient  $f1/f2$ , and if two mathematical integers are equally close to  $f1/f2$ , then *n* is the integer that is even. If the remainder is zero, its sign is the same as the sign of the first argument. Special cases:

o If either argument is NaN, or the first argument is infinite, or the second argument is positive zero or negative zero, then the result is NaN. o If the first argument is finite and the second argument is infinite, then the result is the same as the first argument.

**Parameters:***f1* - the dividend.*f2* - the divisor**Returns:**

the IEEE remainder of value Returns a double value with a positive sign, greater than or equal to 0.0 and less than 1.0. Returned values are chosen pseudorandomly with (approximately) uniform distribution from that range.

When this method is first called, it creates a single new pseudorandom-number generator; This new pseudorandom-number generator is used thereafter for all calls to this method and is used nowhere else.

This method is properly synchronized to allow correct use by more than one thread. However, if many threads need to generate pseudorandom numbers at a great rate, it may reduce contention for each thread to have its own pseudorandom-number generator.

**Returns:**

a pseudorandom double greater than or equal to 0.0 and less than 1.0.

**6.432.3.20 static long long decaf::lang::Math::round (double *value*) [static]**

Returns the closest long long to the argument. The result is rounded to an integer by adding 1/2, taking the floor of the result, and casting the result to type long long. In other words, the result is equal to the value of the expression: (long long) **Math.floor** (p. 2130)(a + 0.5d)

o If the argument is NaN, the result is 0. o If the argument is negative infinity or any value less than or equal to the value of **Long::MIN\_VALUE** (p. 2070), the result is equal to the value of **Long::MIN\_VALUE** (p. 2070). o If the argument is positive infinity or any value greater than or equal to the value of **Long::MAX\_VALUE** (p. 2070), the result is equal to the value of **Long::MAX\_VALUE** (p. 2070).

**Parameters:***value* - the value to round**Returns:**

the value of the argument rounded to the nearest integral value.

**6.432.3.21 static int decaf::lang::Math::round (float *value*) [static]**

Returns the closest int to the argument. The result is rounded to an integer by adding 1/2, taking the floor of the result, and casting the result to type int. In other words, the result is equal to the value of the expression: (int) **Math.floor** (p. 2130)( a + 0.5f )

o If the argument is NaN, the result is 0. o If the argument is negative infinity or any value less than or equal to the value of **Integer::MIN\_VALUE** (p. 1776), the result is equal to the value of **Integer::MIN\_VALUE** (p. 1776). o If the argument is positive infinity or any value greater than or equal to the value of **Integer::MAX\_VALUE** (p. 1775), the result is equal to the value of **Integer::MAX\_VALUE** (p. 1775).

**Parameters:**

*value* - the value to round

**Returns:**

the value of the argument rounded to the nearest integral value.

**6.432.3.22 static double decaf::lang::Math::signum (double *value*) [static]**

Returns the signum function of the argument; zero if the argument is zero, 1.0f if the argument is greater than zero, -1.0f if the argument is less than zero. Special Cases:

o If the argument is NaN, then the result is NaN. o If the argument is positive zero or negative zero, then the result is the same as the argument.

**Parameters:**

*value* - the floating-point value whose signum is to be returned

**Returns:**

the signum function of the argument

**6.432.3.23 static float decaf::lang::Math::signum (float *value*) [static]**

Returns Euler's number e raised to the power of a double value. Special cases:

o If the argument is NaN, the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is negative infinity, then the result is positive zero.

**Parameters:**

*value* - the exponent to raise e to

**Returns:**

the value  $e^a$ , where e is the base of the natural logarithms. Returns  $e^x - 1$ . Note that for values of x near 0, the exact sum of  $\expm1(x) + 1$  is much closer to the true result of  $e^x$  than  $\exp(x)$ . Special cases:

o If the argument is NaN, the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is negative infinity, then the result is -1.0. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the value to raise  $e^x - 1$

**Returns:**

the value  $e^x - 1$ . Returns  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow. Special cases:

If either argument is infinite, then the result is positive infinity. If either argument is NaN and neither argument is infinite, then the result is NaN.

**Parameters:**

*x* - an argument

*y* - another argument

**Returns:**

the  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow Returns the signum function of the argument; zero if the argument is zero, 1.0 if the argument is greater than zero, -1.0 if the argument is less than zero. Special Cases:

o If the argument is NaN, then the result is NaN. o If the argument is positive zero or negative zero, then the result is the same as the argument.

**Parameters:**

*value* - the floating-point value whose signum is to be returned

**Returns:**

the signum function of the argument

**6.432.3.24 static double decaf::lang::Math::sqrt (double *value*) [static]**

Returns the arc cosine of an angle, in the range of 0.0 through pi. Special case:

o If the argument is NaN or its absolute value is greater than 1, then the result is NaN.

**Parameters:**

*value* - the value to return the arc cosine of.

**Returns:**

arc cosine of value in radians. Returns the arc sine of an angle, in the range of -pi/2 through pi/2. Special cases:

o If the argument is NaN or its absolute value is greater than 1, then the result is NaN. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the value to return the arc cosine of.

**Returns:**

arc cosine of value in radians. Returns the arc tangent of an angle, in the range of -pi/2 through pi/2. Special cases:

o If the argument is NaN, then the result is NaN. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the value to return the arc cosine of.

**Returns:**

arc tangent of value in radians. Converts rectangular coordinates (x, y) to polar (r, theta). This method computes the phase theta by computing an arc tangent of y/x in the range of -pi to pi. Special cases:

o If either argument is NaN, then the result is NaN. o If the first argument is positive zero and the second argument is positive, or the first argument is positive and finite and the second argument is positive infinity, then the result is positive zero. o If the first argument is negative zero and the second argument is positive, or the first argument is negative and finite and the second argument is positive infinity, then the result is negative zero. o If the first argument is positive zero and the second argument is negative, or the first argument is positive and finite and the second argument is negative infinity, then the result is the double value closest to pi. o If the first argument is negative zero and the second argument is negative, or the first argument is negative and finite and the second argument is negative infinity, then the result is the double value closest to -pi. o If the first argument is positive and the second argument is positive zero or negative zero, or the first argument is positive infinity and the second argument is finite, then the result is the double value closest to pi/2. o If the first argument is negative and the second argument is positive zero or negative zero, or the first argument is negative infinity and the second argument is finite, then the result is the double value closest to -pi/2. o If both arguments are positive infinity, then the result is the double value closest to pi/4. o If the first argument is positive infinity and the second argument is negative infinity, then the result is the double value closest to 3\*pi/4. o If the first argument is negative infinity and the second argument is positive infinity, then the result is the double value closest to -pi/4. o If both arguments are negative infinity, then the result is the double value closest to -3\*pi/4.

**Parameters:**

*y* - the ordinate coordinate  
*x* - the abscissa coordinate

**Returns:**

the theta component of the point (r, theta) in polar coordinates that corresponds to the point (x, y) in Cartesian coordinates. Returns the cube root of a double value. For positive finite x, cbrt(-x) == -cbrt(x); that is, the cube root of a negative value is the negative of the cube root of that value's magnitude. Special cases:

o If the argument is NaN, then the result is NaN. o If the argument is infinite, then the result is an infinity with the same sign as the argument. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the double to compute the cube root of

**Returns:**

the cube root of value Returns the trigonometric cosine of an angle. Special cases:

o If the argument is NaN or an infinity, then the result is NaN.

**Parameters:**

*value* - an value in radians

**Returns:**

the cosine of the argument. Returns the hyperbolic cosine of a double value. The hyperbolic cosine of  $x$  is defined to be  $(e^x + e^{-x})/2$  where  $e$  is Euler's number. Special cases:

o If the argument is NaN, then the result is NaN. o If the argument is infinite, then the result is positive infinity. o If the argument is zero, then the result is 1.0.

**Parameters:**

*value* - the number whose hyperbolic cosine is to be found

**Returns:**

the hyperbolic cosine of value Returns the trigonometric sine of an angle. Special case:

o If the argument is NaN or an infinity, then the result is NaN. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the number whose sin is to be found

**Returns:**

the sine of value Returns the hyperbolic sine of a double value. The hyperbolic sine of  $x$  is defined to be  $(e^x - e^{-x})/2$  where  $e$  is Euler's number. Special cases:

o If the argument is NaN, then the result is NaN. o If the argument is infinite, then the result is an infinity with the same sign as the argument. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the number whose hyperbolic sin is to be found

**Returns:**

the hyperbolic sine of value Returns the trigonometric tangent of an angle. Special cases:

o If the argument is NaN or an infinity, then the result is NaN. o If the argument is zero, then the result is a zero with the same sign as the argument.

**Parameters:**

*value* - the number whose tangent is to be found

**Returns:**

the tangent of value Returns the hyperbolic tangent of a double value. The hyperbolic tangent of  $x$  is defined to be  $(e^x - e^{-x})/(e^x + e^{-x})$ , in other words,  $\sinh(x)/\cosh(x)$ . Note that the absolute value of the exact tanh is always less than 1. Special cases:

o If the argument is NaN, then the result is NaN. o If the argument is zero, then the result is a zero with the same sign as the argument. o If the argument is positive infinity, then the result is +1.0. o If the argument is negative infinity, then the result is -1.0.

**Parameters:**

*value* - the number whose hyperbolic tangent is to be found

**Returns:**

the hyperbolic cosine of value Returns the correctly rounded positive square root of a double value. Special cases:

o If the argument is NaN or less than zero, then the result is NaN. o If the argument is positive infinity, then the result is positive infinity. o If the argument is positive zero or negative zero, then the result is the same as the argument.

Otherwise, the result is the double value closest to the true mathematical square root of the argument value.

**Parameters:**

*value* - the value to find the square root of  
*the* square root of the argument.

**6.432.3.25** `static double decaf::lang::Math::toDegrees (double angrad)` [inline, static]

Returns the measure in degrees of the supplied radian angle.

**Parameters:**

*angrad* - an angle in radians

**Returns:**

the degree measure of the angle.

**6.432.3.26** `static double decaf::lang::Math::toRadians (double angdeg)` [inline, static]

Returns the measure in radians of the supplied degree angle.

**Parameters:**

*angdeg* - an angle in degrees

**Returns:**

the radian measure of the angle.

**6.432.4 Field Documentation**

**6.432.4.1** `const double decaf::lang::Math::E` [static]

**6.432.4.2** `const double decaf::lang::Math::PI` [static]

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Math.h`



## 6.433 activemq::util::MemoryUsage Class Reference

#include <src/main/activemq/util/MemoryUsage.h> Inheritance diagram for activemq::util::MemoryUsage:

### Public Member Functions

- **MemoryUsage** ()  
*Default Constructor.*
- **MemoryUsage** (unsigned long long limit)  
*Creates an instance of an **Usage** (p. 3351) monitor with a set limit.*
- virtual ~**MemoryUsage** ()
- virtual void **waitForSpace** ()  
*Waits forever for more space to be returned to this **Usage** (p. 3351) Manager.*
- virtual void **waitForSpace** (unsigned int timeout)  
*Waits for more space to be returned to this **Usage** (p. 3351) Manager, times out when the given time span in milliseconds elapses.*
- virtual void **enqueueUsage** (unsigned long long value)  
*Tries to increase the usage by value amount but blocks if this object is currently full.*
- virtual void **increaseUsage** (unsigned long long value)  
*Increases the usage by the value amount.*
- virtual void **decreaseUsage** (unsigned long long value)  
*Decreases the usage by the value amount.*
- virtual bool **isFull** () const  
*Returns true if this **Usage** (p. 3351) instance is full, i.e.*
- unsigned long long **getUsage** () const  
*Gets the current usage amount.*
- void **setUsage** (unsigned long long usage)  
*Sets the current usage amount.*
- unsigned long long **getLimit** () const  
*Gets the current limit amount.*
- void **setLimit** (unsigned long long limit)  
*Sets the current limit amount.*

### 6.433.1 Constructor & Destructor Documentation

#### 6.433.1.1 `activemq::util::MemoryUsage::MemoryUsage ()`

Default Constructor.

#### 6.433.1.2 `activemq::util::MemoryUsage::MemoryUsage (unsigned long long limit)`

Creates an instance of an `Usage` (p. 3351) monitor with a set limit.

**Parameters:**

*limit* - amount of memory this manager allows.

#### 6.433.1.3 `virtual activemq::util::MemoryUsage::~~MemoryUsage ()` [virtual]

### 6.433.2 Member Function Documentation

#### 6.433.2.1 `virtual void activemq::util::MemoryUsage::decreaseUsage (unsigned long long value)` [virtual]

Decreases the usage by the value amount.

**Parameters:**

*value* Amount of space to return to the pool

Implements `activemq::util::Usage` (p. 3351).

#### 6.433.2.2 `virtual void activemq::util::MemoryUsage::enqueueUsage (unsigned long long value)` [inline, virtual]

Tries to increase the usage by value amount but blocks if this object is currently full.

**Parameters:**

*value* Amount of usage in bytes to add.

Implements `activemq::util::Usage` (p. 3351).

#### 6.433.2.3 `unsigned long long activemq::util::MemoryUsage::getLimit ()` const [inline]

Gets the current limit amount.

**Returns:**

the amount that can be used before full.

**6.433.2.4** `unsigned long long activemq::util::MemoryUsage::getUsage () const [inline]`

Gets the current usage amount.

**Returns:**

the amount of bytes currently used.

**6.433.2.5** `virtual void activemq::util::MemoryUsage::increaseUsage (unsigned long long value) [virtual]`

Increases the usage by the value amount.

**Parameters:**

*value* Amount of usage to add.

Implements `activemq::util::Usage` (p. 3352).

**6.433.2.6** `virtual bool activemq::util::MemoryUsage::isFull () const [virtual]`

Returns true if this `Usage` (p. 3351) instance is full, i.e. `Usage` (p. 3351)  $\geq 100\%$

Implements `activemq::util::Usage` (p. 3352).

**6.433.2.7** `void activemq::util::MemoryUsage::setLimit (unsigned long long limit) [inline]`

Sets the current limit amount.

**Parameters:**

*limit* - The amount that can be used before full.

**6.433.2.8** `void activemq::util::MemoryUsage::setUsage (unsigned long long usage) [inline]`

Sets the current usage amount.

**Parameters:**

*usage* - The amount to tag as used.

**6.433.2.9** `virtual void activemq::util::MemoryUsage::waitForSpace (unsigned int timeout) [virtual]`

Waits for more space to be returned to this `Usage` (p. 3351) Manager, times out when the given time span in milliseconds elapses.

**Parameters:**

*timeout* The time to wait for more space.

Implements `activemq::util::Usage` (p. 3352).

**6.433.2.10** `virtual void activemq::util::MemoryUsage::waitForSpace ()` [virtual]

Waits forever for more space to be returned to this **Usage** (p. 3351) Manager.

Implements **activemq::util::Usage** (p. 3352).

The documentation for this class was generated from the following file:

- `src/main/activemq/util/MemoryUsage.h`

## 6.434 activemq::commands::Message Class Reference

#include <src/main/activemq/commands/Message.h> Inheritance diagram for activemq::commands::Message:

### Public Member Functions

- **Message** ()
- virtual **~Message** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **Message \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual void **beforeMarshal** (**wireformat::WireFormat** \*wireFormat AMQCPP\_UNUSED) throw ( decaf::io::IOException )  
*Handles the marshaling of the objects properties into the internal byte array before the object is marshaled to the wire.*
- virtual void **afterUnmarshal** (**wireformat::WireFormat** \*wireFormat AMQCPP\_UNUSED) throw ( decaf::io::IOException )  
*Called after unmarshaling is started to cleanup the object being unmarshaled.*
- virtual bool **isMarshalAware** () const  
*Indicates that this command is aware of Marshaling, and needs to have its Marshaling methods invoked.*
- virtual void **setAckHandler** (const **Pointer**< **core::ActiveMQAckHandler** > &handler)  
*Sets the Acknowledgment Handler that this **Message** (p. 2145) will use when the Acknowledge method is called.*
- virtual **Pointer**< **core::ActiveMQAckHandler** > **getAckHandler** () const  
*Gets the Acknowledgment Handler that this **Message** (p. 2145) will use when the Acknowledge method is called.*
- virtual unsigned int **getSize** () const

*Returns the Size of this message in Bytes.*

- virtual bool **isExpired** () const  
*Returns if this message has expired, meaning that its Expiration time has elapsed.*
- virtual void **onSend** ()  
*Allows derived **Message** (p. 2145) classes to perform tasks before a message is sent.*
- **util::PrimitiveMap** & **getMessageProperties** ()  
*Gets a reference to the Message's Properties object, allows the derived classes to get and set their own specific properties.*
- const **util::PrimitiveMap** & **getMessageProperties** () const
- bool **isReadOnlyProperties** () const  
*Returns if the **Message** (p. 2145) Properties Are Read Only.*
- void **setReadOnlyProperties** (bool value)  
*Set the Read Only State of the **Message** (p. 2145) Properties.*
- bool **isReadOnlyBody** () const  
*Returns if the **Message** (p. 2145) Body is Read Only.*
- void **setReadOnlyBody** (bool value)  
*Set the Read Only State of the **Message** (p. 2145) Content.*
- virtual const **Pointer**< **ProducerId** > & **getProducerId** () const
- virtual **Pointer**< **ProducerId** > & **getProducerId** ()
- virtual void **setProducerId** (const **Pointer**< **ProducerId** > &producerId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const **Pointer**< **TransactionId** > & **getTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getTransactionId** ()
- virtual void **setTransactionId** (const **Pointer**< **TransactionId** > &transactionId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getOriginalDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getOriginalDestination** ()
- virtual void **setOriginalDestination** (const **Pointer**< **ActiveMQDestination** > &originalDestination)
- virtual const **Pointer**< **MessageId** > & **getMessageId** () const
- virtual **Pointer**< **MessageId** > & **getMessageId** ()
- virtual void **setMessageId** (const **Pointer**< **MessageId** > &messageId)
- virtual const **Pointer**< **TransactionId** > & **getOriginalTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getOriginalTransactionId** ()
- virtual void **setOriginalTransactionId** (const **Pointer**< **TransactionId** > &originalTransactionId)
- virtual const std::string & **getGroupID** () const
- virtual std::string & **getGroupID** ()
- virtual void **setGroupID** (const std::string &groupID)
- virtual int **getGroupSequence** () const
- virtual void **setGroupSequence** (int groupSequence)

- virtual const std::string & **getCorrelationId** () const
- virtual std::string & **getCorrelationId** ()
- virtual void **setCorrelationId** (const std::string &correlationId)
- virtual bool **isPersistent** () const
- virtual void **setPersistent** (bool persistent)
- virtual long long **getExpiration** () const
- virtual void **setExpiration** (long long expiration)
- virtual unsigned char **getPriority** () const
- virtual void **setPriority** (unsigned char priority)
- virtual const **Pointer**< **ActiveMQDestination** > & **getReplyTo** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getReplyTo** ()
- virtual void **setReplyTo** (const **Pointer**< **ActiveMQDestination** > &replyTo)
- virtual long long **getTimestamp** () const
- virtual void **setTimestamp** (long long timestamp)
- virtual const std::string & **getType** () const
- virtual std::string & **getType** ()
- virtual void **setType** (const std::string &type)
- virtual const std::vector< unsigned char > & **getContent** () const
- virtual std::vector< unsigned char > & **getContent** ()
- virtual void **setContent** (const std::vector< unsigned char > &content)
- virtual const std::vector< unsigned char > & **getMarshaledProperties** () const
- virtual std::vector< unsigned char > & **getMarshaledProperties** ()
- virtual void **setMarshaledProperties** (const std::vector< unsigned char > &marshalled-Properties)
- virtual const **Pointer**< **DataStructure** > & **getDataStructure** () const
- virtual **Pointer**< **DataStructure** > & **getDataStructure** ()
- virtual void **setDataStructure** (const **Pointer**< **DataStructure** > &dataStructure)
- virtual const **Pointer**< **ConsumerId** > & **getTargetConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getTargetConsumerId** ()
- virtual void **setTargetConsumerId** (const **Pointer**< **ConsumerId** > &targetConsumerId)
- virtual bool **isCompressed** () const
- virtual void **setCompressed** (bool compressed)
- virtual int **getRedeliveryCounter** () const
- virtual void **setRedeliveryCounter** (int redeliveryCounter)
- virtual const std::vector< decaf::lang::Pointer< **BrokerId** > > & **getBrokerPath** () const
- virtual std::vector< decaf::lang::Pointer< **BrokerId** > > & **getBrokerPath** ()
- virtual void **setBrokerPath** (const std::vector< decaf::lang::Pointer< **BrokerId** > > &brokerPath)
- virtual long long **getArrival** () const
- virtual void **setArrival** (long long arrival)
- virtual const std::string & **getUserID** () const
- virtual std::string & **getUserID** ()
- virtual void **setUserID** (const std::string &userID)
- virtual bool **isRecievedByDFBridge** () const
- virtual void **setRecievedByDFBridge** (bool recievedByDFBridge)
- virtual bool **isDroppable** () const
- virtual void **setDroppable** (bool droppable)
- virtual const std::vector< decaf::lang::Pointer< **BrokerId** > > & **getCluster** () const

- virtual std::vector< **decaf::lang::Pointer< BrokerId > >** & **getCluster** ()
- virtual void **setCluster** (const std::vector< **decaf::lang::Pointer< BrokerId > >** &cluster)
- virtual long long **getBrokerInTime** () const
- virtual void **setBrokerInTime** (long long brokerInTime)
- virtual long long **getBrokerOutTime** () const
- virtual void **setBrokerOutTime** (long long brokerOutTime)
- virtual bool **isMessage** () const
- virtual **Pointer< Command >** **visit** (**activemq::state::CommandVisitor** \*visitor) throw ( exceptions::ActiveMQException )

*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID \_MESSAGE** = 0

## Protected Member Functions

- **Message** (const **Message** &)
- **Message** & **operator=** (const **Message** &)

## Protected Attributes

- **Pointer< ProducerId >** producerId
- **Pointer< ActiveMQDestination >** destination
- **Pointer< TransactionId >** transactionId
- **Pointer< ActiveMQDestination >** originalDestination
- **Pointer< MessageId >** messageId
- **Pointer< TransactionId >** originalTransactionId
- std::string **groupID**
- int **groupSequence**
- std::string **correlationId**
- bool **persistent**
- long long **expiration**
- unsigned char **priority**
- **Pointer< ActiveMQDestination >** replyTo
- long long **timestamp**
- std::string **type**
- std::vector< unsigned char > **content**
- std::vector< unsigned char > **marshalledProperties**
- **Pointer< DataStructure >** dataStructure
- **Pointer< ConsumerId >** targetConsumerId
- bool **compressed**
- int **redeliveryCounter**
- std::vector< **decaf::lang::Pointer< BrokerId > >** brokerPath
- long long **arrival**
- std::string **userID**



- bool **recievedByDFBridge**
- bool **droppable**
- std::vector< **decaf::lang::Pointer< BrokerId > > cluster**
- long long **brokerInTime**
- long long **brokerOutTime**

## Static Protected Attributes

- static const unsigned int **DEFAULT\_MESSAGE\_SIZE** = 1024

### 6.434.1 Constructor & Destructor Documentation

**6.434.1.1** `activemq::commands::Message::Message (const Message &) [inline, protected]`

**6.434.1.2** `activemq::commands::Message::Message ()`

**6.434.1.3** `virtual activemq::commands::Message::~Message () [virtual]`

### 6.434.2 Member Function Documentation

**6.434.2.1** `virtual void activemq::commands::Message::afterUnmarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException ) [virtual]`

Called after unmarshaling is started to cleanup the object being unmarshaled.

#### Parameters:

*wireFormat* - the wireformat object to control unmarshaling

Reimplemented from `activemq::commands::BaseDataStructure` (p. 716).

**6.434.2.2** `virtual void activemq::commands::Message::beforeMarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException ) [virtual]`

Handles the marshaling of the objects properties into the internal byte array before the object is marshaled to the wire.

#### Parameters:

*wireFormat* - the wireformat controller

Reimplemented from `activemq::commands::BaseDataStructure` (p. 716).

**6.434.2.3** `virtual Message* activemq::commands::Message::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 173), `activemq::commands::ActiveMQBytesMessage` (p. 200), `activemq::commands::ActiveMQMapMessage` (p. 312), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 467), and `activemq::commands::ActiveMQTextMessage` (p. 575).

#### 6.434.2.4 `virtual void activemq::commands::Message::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

**Parameters:**

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 173), `activemq::commands::ActiveMQBytesMessage` (p. 201), `activemq::commands::ActiveMQMapMessage` (p. 312), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 467), and `activemq::commands::ActiveMQTextMessage` (p. 575).

#### 6.434.2.5 `virtual bool activemq::commands::Message::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 174), `activemq::commands::ActiveMQBytesMessage` (p. 201), `activemq::commands::ActiveMQMapMessage` (p. 312), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQMessageTemplate< T >` (p. 369), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 468), `activemq::commands::ActiveMQTextMessage` (p. 575), `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 369), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 369).

```
6.434.2.6 virtual Pointer<core::ActiveMQAckHandler>
activemq::commands::Message::getAckHandler () const [inline,
virtual]
```

Gets the Acknowledgment Handler that this **Message** (p. 2145) will use when the Acknowledge method is called.

**Returns:**

handler ActiveMQAckHandler to call or NULL if not set

- 6.434.2.7 `virtual long long activemq::commands::Message::getArrival () const [virtual]`
- 6.434.2.8 `virtual long long activemq::commands::Message::getBrokerInTime () const [virtual]`
- 6.434.2.9 `virtual long long activemq::commands::Message::getBrokerOutTime () const [virtual]`
- 6.434.2.10 `virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::Message::getBrokerPath () [virtual]`
- 6.434.2.11 `virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::Message::getBrokerPath () const [virtual]`
- 6.434.2.12 `virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::Message::getCluster () [virtual]`
- 6.434.2.13 `virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::Message::getCluster () const [virtual]`
- 6.434.2.14 `virtual std::vector<unsigned char>& activemq::commands::Message::getContent () [virtual]`
- 6.434.2.15 `virtual const std::vector<unsigned char>& activemq::commands::Message::getContent () const [virtual]`
- 6.434.2.16 `virtual std::string& activemq::commands::Message::getCorrelationId () [virtual]`
- 6.434.2.17 `virtual const std::string& activemq::commands::Message::getCorrelationId () const [virtual]`
- 6.434.2.18 `virtual Pointer<DataStructure>& activemq::commands::Message::getDataStructure () [virtual]`
- 6.434.2.19 `virtual const Pointer<DataStructure>& activemq::commands::Message::getDataStructure () const [virtual]`
- 6.434.2.20 `virtual unsigned char activemq::commands::Message::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 174), `activemq::commands::ActiveMQBytesMessage` (p. 202), `activemq::commands::ActiveMQMapMessage` (p. 314), `activemq::commands::ActiveMQMessage` (p. 343), `activemq::commands::ActiveMQObjectMessage` (p. 385), `activemq::commands::ActiveMQStreamMessage` (p. 468), and `activemq::commands::ActiveMQTextMessage` (p. 575).

- 6.434.2.21** `virtual Pointer<ActiveMQDestination>& activemq::commands::Message::getDestination () [virtual]`
- 6.434.2.22** `virtual const Pointer<ActiveMQDestination>& activemq::commands::Message::getDestination () const [virtual]`
- 6.434.2.23** `virtual long long activemq::commands::Message::getExpiration () const [virtual]`
- 6.434.2.24** `virtual std::string& activemq::commands::Message::getGroupID () [virtual]`
- 6.434.2.25** `virtual const std::string& activemq::commands::Message::getGroupID () const [virtual]`
- 6.434.2.26** `virtual int activemq::commands::Message::getGroupSequence () const [virtual]`
- 6.434.2.27** `virtual std::vector<unsigned char>& activemq::commands::Message::getMarshaledProperties () [virtual]`
- 6.434.2.28** `virtual const std::vector<unsigned char>& activemq::commands::Message::getMarshaledProperties () const [virtual]`
- 6.434.2.29** `virtual Pointer<MessageId>& activemq::commands::Message::getMessageId () [virtual]`
- 6.434.2.30** `virtual const Pointer<MessageId>& activemq::commands::Message::getMessageId () const [virtual]`
- 6.434.2.31** `const util::PrimitiveMap& activemq::commands::Message::getMessageProperties () const [inline]`
- 6.434.2.32** `util::PrimitiveMap& activemq::commands::Message::getMessageProperties () [inline]`

Gets a reference to the Message's Properties object, allows the derived classes to get and set their own specific properties.

**Returns:**

a reference to the Primitive Map that holds message properties.

- 6.434.2.33** `virtual Pointer<ActiveMQDestination>& activemq::commands::Message::getOriginalDestination ()`  
[virtual]
- 6.434.2.34** `virtual const Pointer<ActiveMQDestination>& activemq::commands::Message::getOriginalDestination () const`  
[virtual]
- 6.434.2.35** `virtual Pointer<TransactionId>& activemq::commands::Message::getOriginalTransactionId ()`  
[virtual]
- 6.434.2.36** `virtual const Pointer<TransactionId>& activemq::commands::Message::getOriginalTransactionId () const`  
[virtual]
- 6.434.2.37** `virtual unsigned char activemq::commands::Message::getPriority ()`  
const [virtual]
- 6.434.2.38** `virtual Pointer<ProducerId>& activemq::commands::Message::getProducerId ()`  
[virtual]
- 6.434.2.39** `virtual const Pointer<ProducerId>& activemq::commands::Message::getProducerId () const`  
[virtual]
- 6.434.2.40** `virtual int activemq::commands::Message::getRedeliveryCounter ()`  
const [virtual]
- 6.434.2.41** `virtual Pointer<ActiveMQDestination>& activemq::commands::Message::getReplyTo ()` [virtual]
- 6.434.2.42** `virtual const Pointer<ActiveMQDestination>& activemq::commands::Message::getReplyTo () const` [virtual]
- 6.434.2.43** `virtual unsigned int activemq::commands::Message::getSize () const`  
[virtual]

Returns the Size of this message in Bytes.

**Returns:**

number of bytes this message equates to.

Reimplemented in `activemq::commands::ActiveMQTextMessage` (p. 576).

- 6.434.2.44** `virtual Pointer<ConsumerId>& activemq::commands::Message::getTargetConsumerId ()`  
[virtual]
- 6.434.2.45** `virtual const Pointer<ConsumerId>& activemq::commands::Message::getTargetConsumerId ()`  
const [virtual]
- 6.434.2.46** `virtual long long activemq::commands::Message::getTimestamp ()` const  
[virtual]
- 6.434.2.47** `virtual Pointer<TransactionId>& activemq::commands::Message::getTransactionId ()`  
[virtual]
- 6.434.2.48** `virtual const Pointer<TransactionId>& activemq::commands::Message::getTransactionId ()` const  
[virtual]
- 6.434.2.49** `virtual std::string& activemq::commands::Message::getType ()`  
[virtual]
- 6.434.2.50** `virtual const std::string& activemq::commands::Message::getType ()`  
const [virtual]
- 6.434.2.51** `virtual std::string& activemq::commands::Message::getUserID ()`  
[virtual]
- 6.434.2.52** `virtual const std::string& activemq::commands::Message::getUserID ()`  
const [virtual]
- 6.434.2.53** `virtual bool activemq::commands::Message::isCompressed ()` const  
[virtual]
- 6.434.2.54** `virtual bool activemq::commands::Message::isDroppable ()` const  
[virtual]
- 6.434.2.55** `virtual bool activemq::commands::Message::isExpired ()` const  
[virtual]

Returns if this message has expired, meaning that its Expiration time has elapsed.

**Returns:**

true if message is expired.

- 6.434.2.56** `virtual bool activemq::commands::Message::isMarshalAware ()` const  
[inline, virtual]

Indicates that this command is aware of Marshaling, and needs to have its Marshaling methods invoked.

**Returns:**

boolean indicating desire to be in marshaling stages

Reimplemented from `activemq::commands::BaseDataStructure` (p. 717).

Reimplemented in `activemq::commands::ActiveMQMapMessage` (p. 316).

**6.434.2.57** `virtual bool activemq::commands::Message::isMessage () const`  
[inline, virtual]

**Returns:**

an answer of true to the `isMessage()` (p. 2156) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).

**6.434.2.58** `virtual bool activemq::commands::Message::isPersistent () const`  
[virtual]

**6.434.2.59** `bool activemq::commands::Message::isReadOnlyBody () const` [inline]

Returns if the `Message` (p. 2145) Body is Read Only.

**Returns:**

true if `Message` (p. 2145) Content is Read Only.

**6.434.2.60** `bool activemq::commands::Message::isReadOnlyProperties () const`  
[inline]

Returns if the `Message` (p. 2145) Properties Are Read Only.

**Returns:**

true if `Message` (p. 2145) Properties are Read Only.

**6.434.2.61** `virtual bool activemq::commands::Message::isRecievedByDFBridge ()`  
`const` [virtual]

**6.434.2.62** `virtual void activemq::commands::Message::onSend ()` [inline,  
virtual]

Allows derived `Message` (p. 2145) classes to perform tasks before a message is sent.

Reimplemented in `activemq::commands::ActiveMQBytesMessage` (p. 202),  
`activemq::commands::ActiveMQMessageTemplate< T >` (p. 376),  
`activemq::commands::ActiveMQStreamMessage` (p. 468),  
`activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 376),  
`activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 376),  
`activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 376),  
`activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 376),  
`activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 376), and  
`activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 376).



**6.434.2.63** `Message& activemq::commands::Message::operator= (const Message &)`  
[inline, protected]

**6.434.2.64** `virtual void activemq::commands::Message::setAckHandler (const  
Pointer< core::ActiveMQAckHandler > & handler)` [inline, virtual]

Sets the Acknowledgment Handler that this **Message** (p.2145) will use when the Acknowledge method is called.

**Parameters:**

*handler* ActiveMQAckHandler to call

- 6.434.2.65 virtual void activemq::commands::Message::setArrival (long long *arrival*) [virtual]
- 6.434.2.66 virtual void activemq::commands::Message::setBrokerInTime (long long *brokerInTime*) [virtual]
- 6.434.2.67 virtual void activemq::commands::Message::setBrokerOutTime (long long *brokerOutTime*) [virtual]
- 6.434.2.68 virtual void activemq::commands::Message::setBrokerPath (const std::vector< decaf::lang::Pointer< BrokerId > > & *brokerPath*) [virtual]
- 6.434.2.69 virtual void activemq::commands::Message::setCluster (const std::vector< decaf::lang::Pointer< BrokerId > > & *cluster*) [virtual]
- 6.434.2.70 virtual void activemq::commands::Message::setCompressed (bool *compressed*) [virtual]
- 6.434.2.71 virtual void activemq::commands::Message::setContent (const std::vector< unsigned char > & *content*) [virtual]
- 6.434.2.72 virtual void activemq::commands::Message::setCorrelationId (const std::string & *correlationId*) [virtual]
- 6.434.2.73 virtual void activemq::commands::Message::setDataStructure (const Pointer< DataStructure > & *dataStructure*) [virtual]
- 6.434.2.74 virtual void activemq::commands::Message::setDestination (const Pointer< ActiveMQDestination > & *destination*) [virtual]
- 6.434.2.75 virtual void activemq::commands::Message::setDroppable (bool *droppable*) [virtual]
- 6.434.2.76 virtual void activemq::commands::Message::setExpiration (long long *expiration*) [virtual]
- 6.434.2.77 virtual void activemq::commands::Message::setGroupID (const std::string & *groupID*) [virtual]
- 6.434.2.78 virtual void activemq::commands::Message::setGroupSequence (int *groupSequence*) [virtual]
- 6.434.2.79 virtual void activemq::commands::Message::setMarshaledProperties (const std::vector< unsigned char > & *marshalledProperties*) [virtual]
- 6.434.2.80 virtual void activemq::commands::Message::setMessageId (const Pointer< MessageId > & *messageId*) [virtual]
- 6.434.2.81 virtual void activemq::commands::Message::setOriginalDestination (const Pointer< ActiveMQDestination > & *originalDestination*) [virtual]
- 6.434.2.82 virtual void activemq::commands::Message::setOriginalTransactionId (const Pointer< TransactionId > & *originalTransactionId*) [virtual]

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Generated on Tue Feb 9 12:26:28 2010 for activemq-cpp-3.1.0 by Doxygen

- 6.434.2.83 virtual void activemq::commands::Message::setPersistent (bool *persistent*) [virtual]
- 6.434.2.84 virtual void activemq::commands::Message::setPriority (unsigned char *priority*) [virtual]

**Parameters:**

*value* - true if Content should be read only.

**6.434.2.87** void `activemq::commands::Message::setReadOnlyProperties` (bool *value*) [inline]

Set the Read Only State of the **Message** (p. 2145) Properties.

**Parameters:**

*value* - true if Properties should be read only.

**6.434.2.88** virtual void `activemq::commands::Message::setRecievedByDFBridge` (bool *recievedByDFBridge*) [virtual]

**6.434.2.89** virtual void `activemq::commands::Message::setRedeliveryCounter` (int *redeliveryCounter*) [virtual]

**6.434.2.90** virtual void `activemq::commands::Message::setReplyTo` (const Pointer< ActiveMQDestination > & *replyTo*) [virtual]

**6.434.2.91** virtual void `activemq::commands::Message::setTargetConsumerId` (const Pointer< ConsumerId > & *targetConsumerId*) [virtual]

**6.434.2.92** virtual void `activemq::commands::Message::setTimestamp` (long long *timestamp*) [virtual]

**6.434.2.93** virtual void `activemq::commands::Message::setTransactionId` (const Pointer< TransactionId > & *transactionId*) [virtual]

**6.434.2.94** virtual void `activemq::commands::Message::setType` (const std::string & *type*) [virtual]

**6.434.2.95** virtual void `activemq::commands::Message::setUserID` (const std::string & *userID*) [virtual]

**6.434.2.96** virtual std::string `activemq::commands::Message::toString` () const [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

Reimplemented in `activemq::commands::ActiveMQBlobMessage` (p. 176), `activemq::commands::ActiveMQBytesMessage` (p. 208), `activemq::commands::ActiveMQMapMessage` (p. 320), `activemq::commands::ActiveMQMessage` (p. 344), `activemq::commands::ActiveMQObjectMessage` (p. 385), `activemq::commands::ActiveMQStreamMessage` (p. 474), and `activemq::commands::ActiveMQTextMessage` (p. 577).

**6.434.2.97** `virtual Pointer<Command> activemq::commands::Message::visit  
(activemq::state::CommandVisitor * visitor) throw (  
exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.434.3 Field Documentation

- 6.434.3.1 `long long activemq::commands::Message::arrival` [protected]
- 6.434.3.2 `long long activemq::commands::Message::brokerInTime` [protected]
- 6.434.3.3 `long long activemq::commands::Message::brokerOutTime` [protected]
- 6.434.3.4 `std::vector< decaf::lang::Pointer<BrokerId> > activemq::commands::Message::brokerPath` [protected]
- 6.434.3.5 `std::vector< decaf::lang::Pointer<BrokerId> > activemq::commands::Message::cluster` [protected]
- 6.434.3.6 `bool activemq::commands::Message::compressed` [protected]
- 6.434.3.7 `std::vector<unsigned char> activemq::commands::Message::content` [protected]
- 6.434.3.8 `std::string activemq::commands::Message::correlationId` [protected]
- 6.434.3.9 `Pointer<DataStructure> activemq::commands::Message::dataStructure` [protected]
- 6.434.3.10 `const unsigned int activemq::commands::Message::DEFAULT_MESSAGE_SIZE = 1024` [static, protected]
- 6.434.3.11 `Pointer<ActiveMQDestination> activemq::commands::Message::destination` [protected]
- 6.434.3.12 `bool activemq::commands::Message::droppable` [protected]
- 6.434.3.13 `long long activemq::commands::Message::expiration` [protected]
- 6.434.3.14 `std::string activemq::commands::Message::groupId` [protected]
- 6.434.3.15 `int activemq::commands::Message::groupSequence` [protected]
- 6.434.3.16 `const unsigned char activemq::commands::Message::ID_MESSAGE = 0` [static]
- 6.434.3.17 `std::vector<unsigned char> activemq::commands::Message::marshalledProperties` [protected]
- 6.434.3.18 `Pointer<MessageId> activemq::commands::Message::messageId` [protected]
- 6.434.3.19 `Pointer<ActiveMQDestination> activemq::commands::Message::originalDestination` [protected]
- 6.434.3.20 `Pointer<TransactionId> activemq::commands::Message::originalTransactionId` [protected]

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Generated on Tue Feb 9 12:26:28 2010 for activemq-cpp-3.1.0 by Doxygen

- 6.434.3.21 `bool activemq::commands::Message::persistent` [protected]
- 6.434.3.22 `unsigned char activemq::commands::Message::priority` [protected]

- 6.434.3.23 `Pointer<ProducerId> activemq::commands::Message::producerId` [protected]

- `src/main/activemq/commands/Message.h`

## 6.435 cms::Message Class Reference

Root of all messages.

#include <src/main/cms/Message.h> Inheritance diagram for cms::Message:

### Public Member Functions

- virtual `~Message ()`
- virtual `Message * clone () const =0`  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- virtual void `acknowledge () const =0 throw ( IllegalStateException, CMSEException )`  
*Acknowledges all consumed messages of the session of this consumed message.*
- virtual void `clearBody ()=0 throw ( CMSEException )`  
*Clears out the body of the message.*
- virtual void `clearProperties ()=0 throw ( CMSEException )`  
*Clears out the message body.*
- virtual `std::vector< std::string > getPropertyNames () const =0 throw ( CMSEException )`  
*Retrieves the property names.*
- virtual bool `propertyExists (const std::string &name) const =0 throw ( CMSEException )`  
*Indicates whether or not a given property exists.*
- virtual bool `getBooleanProperty (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )`  
*Gets a boolean property.*
- virtual unsigned char `getByteProperty (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )`  
*Gets a byte property.*
- virtual double `getDoubleProperty (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )`  
*Gets a double property.*
- virtual float `getFloatProperty (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )`  
*Gets a float property.*
- virtual int `getIntProperty (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )`  
*Gets a int property.*

- virtual long long **getLongProperty** (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )  
*Gets a long property.*
- virtual short **getShortProperty** (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )  
*Gets a short property.*
- virtual std::string **getStringProperty** (const std::string &name) const =0 throw ( MessageFormatException, CMSEException )  
*Gets a string property.*
- virtual void **setBooleanProperty** (const std::string &name, bool value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a boolean property.*
- virtual void **setByteProperty** (const std::string &name, unsigned char value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a byte property.*
- virtual void **setDoubleProperty** (const std::string &name, double value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a double property.*
- virtual void **setFloatProperty** (const std::string &name, float value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a float property.*
- virtual void **setIntProperty** (const std::string &name, int value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a int property.*
- virtual void **setLongProperty** (const std::string &name, long long value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a long property.*
- virtual void **setShortProperty** (const std::string &name, short value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a short property.*
- virtual void **setStringProperty** (const std::string &name, const std::string &value)=0 throw ( MessageNotWriteableException, CMSEException )  
*Sets a string property.*
- virtual std::string **getCMSCorrelationID** () const =0 throw ( CMSEException )  
*Gets the correlation ID for the message.*
- virtual void **setCMSCorrelationID** (const std::string &correlationId)=0 throw ( CMSEException )  
*Sets the correlation ID for the message.*



- virtual int **getCMSDeliveryMode** () const =0 throw ( CMSEException )  
*Gets the **DeliveryMode** (p. 1478) for this message.*
- virtual void **setCMSDeliveryMode** (int mode)=0 throw ( CMSEException )  
*Sets the **DeliveryMode** (p. 1478) for this message.*
- virtual const **Destination** \* **getCMSDestination** () const =0 throw ( CMSEException )  
*Gets the **Destination** (p. 1480) object for this message.*
- virtual void **setCMSDestination** (const **Destination** \*destination)=0 throw ( CMSEException )  
*Sets the **Destination** (p. 1480) object for this message.*
- virtual long long **getCMSExpiration** () const =0 throw ( CMSEException )  
*Gets the message's expiration value.*
- virtual void **setCMSExpiration** (long long expireTime)=0 throw ( CMSEException )  
*Sets the message's expiration value.*
- virtual std::string **getCMSMessageID** () const =0 throw ( CMSEException )  
*The CMSMessageID header field contains a value that uniquely identifies each message sent by a provider.*
- virtual void **setCMSMessageID** (const std::string &id)=0 throw ( CMSEException )  
*Sets the message ID.*
- virtual int **getCMSPriority** () const =0 throw ( CMSEException )  
*Gets the message priority level.*
- virtual void **setCMSPriority** (int priority)=0 throw ( CMSEException )  
*Sets the Priority Value for this message.*
- virtual bool **getCMSRedelivered** () const =0 throw ( CMSEException )  
*Gets an indication of whether this message is being redelivered.*
- virtual void **setCMSRedelivered** (bool redelivered)=0 throw ( CMSEException )  
*Specifies whether this message is being redelivered.*
- virtual const **cms::Destination** \* **getCMSReplyTo** () const =0 throw ( CMSEException )  
*Gets the **Destination** (p. 1480) object to which a reply to this message should be sent.*
- virtual void **setCMSReplyTo** (const **cms::Destination** \*destination)=0 throw ( CMSEException )  
*Sets the **Destination** (p. 1480) object to which a reply to this message should be sent.*
- virtual long long **getCMSTimestamp** () const =0 throw ( CMSEException )  
*Gets the message timestamp.*
- virtual void **setCMSTimestamp** (long long timeStamp)=0 throw ( CMSEException )

*Sets the message timestamp.*

- virtual std::string **getCMSType** () const =0 throw ( CMSEException )

*Gets the message type identifier supplied by the client when the message was sent.*

- virtual void **setCMSType** (const std::string &type)=0 throw ( CMSEException )

*Sets the message type.*

### 6.435.1 Detailed Description

Root of all messages. As in JMS, a message is comprised of 3 parts: CMS-specific headers, user-defined properties, and the body.

#### Message (p. 2163) Bodies

The CMS API defines four types of message bodies, each type is contained within its own **Message** (p. 2163) Interface definition.

- Stream - A **StreamMessage** (p. 3081) object's message body contains a stream of primitive values in the C++ language. It is filled and read sequentially. Unlike the **BytesMessage** (p. 938) type the values written to a **StreamMessage** (p. 3081) retain information on their type and rules for type conversion are enforced when reading back the values from the **Message** (p. 2163) Body.
- Map - A **MapMessage** (p. 2106) object's message body contains a set of name-value pairs, where names are std::string objects, and values are C++ primitives. The entries can be accessed sequentially or randomly by name. The **MapMessage** (p. 2106) makes no guarantee on the order of the elements within the **Message** (p. 2163) body.
- Text - A **TextMessage** (p. 3170) object's message body contains a std::string object. This message type can be used to transport plain-text messages, and XML messages.
- Bytes - A **BytesMessage** (p. 938) object's message body contains a stream of uninterpreted bytes. This message type is for literally encoding a body to match an existing message format. In many cases, it is possible to use one of the other body types, which are easier to use.

#### Message (p. 2163) Properties

**Message** (p. 2163) properties support the following conversion table. The marked cases must be supported. The unmarked cases must throw a **CMSEException** (p. 1031). The String-to-primitive conversions may throw a runtime exception if the primitive's valueOf method does not accept the String as a valid representation of the primitive.

A value written as the row type can be read as the column type.

	boolean	byte	short	int	long	float	double	String
boolean	X							X
byte		X	X	X	X			X
short			X	X	X			X
int				X	X			X
long					X			X
float						X	X	X
double							X	X
String	X	X	X	X	X	X	X	X

---

When a **Message** (p. 2163) is delivered its properties are considered to be in a read-only mode and cannot be changed. Attempting to change the value of a delivered Message's properties will result in a **CMSEException** (p. 1031) being thrown.

See also:

JMS API

Since:

1.0

## 6.435.2 Constructor & Destructor Documentation

**6.435.2.1** virtual cms::Message::~Message () [inline, virtual]

## 6.435.3 Member Function Documentation

**6.435.3.1** virtual void cms::Message::acknowledge () const throw (   
 IllegalStateException, CMSEException ) [pure virtual]

Acknowledges all consumed messages of the session of this consumed message. All consumed CMS messages support the acknowledge method for use when a client has specified that its CMS session's consumed messages are to be explicitly acknowledged. By invoking acknowledge on a consumed message, a client acknowledges all messages consumed by the session that the message was delivered to.

Calls to acknowledge are ignored for both transacted sessions and sessions specified to use implicit acknowledgment modes.

A client may individually acknowledge each message as it is consumed, or it may choose to acknowledge messages as an application-defined group (which is done by calling acknowledge on the last received message of the group, thereby acknowledging all messages consumed by the session.)

Messages that have been received but not acknowledged may be redelivered.

Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

*IllegalStateException* (p. 1729) - if this method is called on a closed session.

Implemented in **activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >** (p. 368), **activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >** (p. 368), **activemq::commands::ActiveMQMessageTemplate< cms::Message >** (p. 368), **activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >** (p. 368), **activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >** (p. 368), and **activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >** (p. 368).

**6.435.3.2** virtual void cms::Message::clearBody () throw ( CMSEException ) [pure virtual]

Clears out the body of the message. This does not clear the headers or properties.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQBytesMessage` (p. 200), `activemq::commands::ActiveMQMapMessage` (p. 311), `activemq::commands::ActiveMQStreamMessage` (p. 467), `activemq::commands::ActiveMQTextMessage` (p. 574), `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 368), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 368), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 368), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 368), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 368), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 368).

### 6.435.3.3 `virtual void cms::Message::clearProperties () throw ( CMSEException )` [pure virtual]

Clears out the message body. Clearing a message's body does not clear its header values or property entries.

If this message body was read-only, calling this method leaves the message body in the same state as an empty body in a newly created message.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 369), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 369), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 369), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 369), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 369), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 369).

### 6.435.3.4 `virtual Message* cms::Message::clone () const` [pure virtual]

Clone this message exactly, returns a new instance that the caller is required to delete.

**Returns:**

new copy of this message

Implemented in `activemq::commands::ActiveMQBlobMessage` (p. 173), `activemq::commands::ActiveMQBytesMessage` (p. 200), `activemq::commands::ActiveMQMapMessage` (p. 311), `activemq::commands::ActiveMQMessage` (p. 342), `activemq::commands::ActiveMQObjectMessage` (p. 384), `activemq::commands::ActiveMQStreamMessage` (p. 467), `activemq::commands::ActiveMQTextMessage` (p. 574), and `cms::BytesMessage` (p. 941).

**6.435.3.5** `virtual bool cms::Message::getBooleanProperty (const std::string & name) const throw ( MessageFormatException, CMSException ) [pure virtual]`

Gets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 369), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 369), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 369).

**6.435.3.6** `virtual unsigned char cms::Message::getByteProperty (const std::string & name) const throw ( MessageFormatException, CMSException ) [pure virtual]`

Gets a byte property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 370), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 370).

### 6.435.3.7 `virtual std::string cms::Message::getCMSCorrelationID () const throw ( CMSEException ) [pure virtual]`

Gets the correlation ID for the message. This method is used to return correlation ID values that are either provider-specific message IDs or application-specific String values.

#### Returns:

string representation of the correlation Id

#### Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 370), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 370).

### 6.435.3.8 `virtual int cms::Message::getCMSDeliveryMode () const throw ( CMSEException ) [pure virtual]`

Gets the **DeliveryMode** (p. 1478) for this message.

#### Returns:

**DeliveryMode** (p. 1478) enumerated value.

#### Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate< cms::BytesMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::MapMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::Message >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::StreamMessage >` (p. 370), `activemq::commands::ActiveMQMessageTemplate< cms::TextMessage >` (p. 370), and `activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >` (p. 370).

### 6.435.3.9 `virtual const Destination* cms::Message::getCMSDestination () const throw ( CMSEException ) [pure virtual]`

Gets the **Destination** (p. 1480) object for this message. The **CMSDestination** header field contains the destination to which the message is being sent.

When a message is sent, this field is ignored. After completion of the send or publish method, the field holds the destination specified by the method.

When a message is received, its **CMSDestination** value must be equivalent to the value assigned when it was sent.

**Returns:**

**Destination** (p. 1480) object

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 371), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 371).

#### 6.435.3.10 `virtual long long cms::Message::getCMSExpiration () const throw (CMSException) [pure virtual]`

Gets the message's expiration value. When a message is sent, the CMSExpiration header field is left unassigned. After completion of the send or publish method, it holds the expiration time of the message. This is the sum of the time-to-live value specified by the client and the GMT at the time of the send or publish.

If the time-to-live is specified as zero, CMSExpiration is set to zero to indicate that the message does not expire.

When a message's expiration time is reached, a provider should discard it. The CMS API does not define any form of notification of message expiration.

Clients should not receive messages that have expired; however, the CMS API does not guarantee that this will not happen.

**Returns:**

the time the message expires, which is the sum of the time-to-live value specified by the client and the GMT at the time of the send

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 371), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 371).

#### 6.435.3.11 `virtual std::string cms::Message::getCMSMessageID () const throw (CMSException) [pure virtual]`

The CMSMessageID header field contains a value that uniquely identifies each message sent by a provider. When a message is sent, CMSMessageID can be ignored. When the send or publish method returns, it contains a provider-assigned value.

A `CMSMessageID` is a `String` value that should function as a unique key for identifying messages in a historical repository. The exact scope of uniqueness is provider-defined. It should at least cover all messages for a specific installation of a provider, where an installation is some connected set of message routers.

All `CMSMessageID` values must start with the prefix `'ID:'`. Uniqueness of message ID values across different providers is not required.

Since message IDs take some effort to create and increase a message's size, some CMS providers may be able to optimize message overhead if they are given a hint that the message ID is not used by an application. By calling the `MessageProducer.setDisableMessageID` (p. 2337) method, a CMS client enables this potential optimization for all messages sent by that message producer. If the CMS provider accepts this hint, these messages must have the message ID set to null; if the provider ignores the hint, the message ID must be set to its normal unique value.

#### Returns:

provider-assigned message id

#### Exceptions:

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 371), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 371), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 371).

#### 6.435.3.12 `virtual int cms::Message::getCMSPriority () const throw (CMSException ) [pure virtual]`

Gets the message priority level. The CMS API defines ten levels of priority value, with 0 as the lowest priority and 9 as the highest. In addition, clients should consider priorities 0-4 as gradations of normal priority and priorities 5-9 as gradations of expedited priority.

The CMS API does not require that a provider strictly implement priority ordering of messages; however, it should do its best to deliver expedited messages ahead of normal messages.

#### Returns:

priority value

#### Exceptions:

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 372), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 372).



### 6.435.3.13 virtual bool cms::Message::getCMSRedelivered () const throw ( CMSEException ) [pure virtual]

Gets an indication of whether this message is being redelivered. If a client receives a message with the CMSRedelivered field set, it is likely, but not guaranteed, that this message was delivered earlier but that its receipt was not acknowledged at that time.

#### Returns:

true if this message is being redelivered

#### Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 372), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 372).

### 6.435.3.14 virtual const cms::Destination\* cms::Message::getCMSReplyTo () const throw ( CMSEException ) [pure virtual]

Gets the **Destination** (p. 1480) object to which a reply to this message should be sent.

#### Returns:

**Destination** (p. 1480) to which to send a response to this message

#### Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 372), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 372).

### 6.435.3.15 virtual long long cms::Message::getCMSTimestamp () const throw ( CMSEException ) [pure virtual]

Gets the message timestamp. The CMSTimestamp header field contains the time a message was handed off to a provider to be sent. It is not the time the message was actually transmitted, because the actual send may occur later due to transactions or other client-side queuing of messages.

When a message is sent, CMSTimestamp is ignored. When the send or publish method returns, it contains a time value somewhere in the interval between the call and the return. The value is in the format of a normal millis time value in the Java programming language.

Since timestamps take some effort to create and increase a message's size, some CMS providers may be able to optimize message overhead if they are given a hint that the timestamp is not used by an application. By calling the `MessageProducer.setDisableMessageTimestamp` method, a CMS client enables this potential optimization for all messages sent by that message producer. If the CMS provider accepts this hint, these messages must have the timestamp set to zero; if the provider ignores the hint, the timestamp must be set to its normal value.

**Returns:**

the message timestamp

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 372), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 372), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 372).

**6.435.3.16** `virtual std::string cms::Message::getCMSType () const throw ( CMSEException ) [pure virtual]`

Gets the message type identifier supplied by the client when the message was sent.

**Returns:**

the message type

**See also:**

`setCMSType` (p. 2183)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 373), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 373).

**6.435.3.17** `virtual double cms::Message::getDoubleProperty (const std::string & name) const throw ( MessageFormatException, CMSEException ) [pure virtual]`

Gets a double property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 373), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 373).

**6.435.3.18** `virtual float cms::Message::getFloatProperty (const std::string & name)  
const throw ( MessageFormatException, CMSEException ) [pure  
virtual]`

Gets a float property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 373), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 373), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 373).

**6.435.3.19** `virtual int cms::Message::getIntProperty (const std::string & name)  
const throw ( MessageFormatException, CMSEException ) [pure  
virtual]`

Gets a int property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 374), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 374).

**6.435.3.20** `virtual long long cms::Message::getLongProperty (const std::string & name) const throw ( MessageFormatException, CMSEException )` [pure virtual]

Gets a long property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 374), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 374), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 374).

**6.435.3.21** `virtual std::vector<std::string> cms::Message::getPropertyNames () const throw ( CMSEException )` [pure virtual]

Retrieves the property names.

**Returns:**

The complete set of property names currently in this message.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 375), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 375).

**6.435.3.22** `virtual short cms::Message::getShortProperty (const std::string & name) const throw ( MessageFormatException, CMSEException ) [pure virtual]`

Gets a short property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 375), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 375).

**6.435.3.23** `virtual std::string cms::Message::getStringProperty (const std::string & name) const throw ( MessageFormatException, CMSEException ) [pure virtual]`

Gets a string property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**Exceptions:**

*CMSEException* (p. 1031) if the property does not exist.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 375), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 375), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 375).

**6.435.3.24** `virtual bool cms::Message::propertyExists (const std::string & name) const throw ( CMSExcption )` [pure virtual]

Indicates whether or not a given property exists.

**Parameters:**

*name* The name of the property to look up.

**Returns:**

True if the property exists in this message.

**Exceptions:**

*CMSExcption* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 376), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 376), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 376), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 376), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 376), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 376).

**6.435.3.25** `virtual void cms::Message::setBooleanProperty (const std::string & name, bool value) throw ( MessageNotWriteableException, CMSExcption )` [pure virtual]

Sets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**Exceptions:**

*CMSExcption* (p. 1031) - if the name is an empty string.

*MessageNotWriteableException* (p. 2331) - if properties are read-only

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 376), `activemq::commands::ActiveMQMessageTemplate<`

**cms::MapMessage** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::Message** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::StreamMessage** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::TextMessage** > (p. 376), and **activemq::commands::ActiveMQMessageTemplate**<  
**cms::ObjectMessage** > (p. 376).

**6.435.3.26** **virtual void cms::Message::setByteProperty (const std::string & name, unsigned char value) throw ( MessageNotWriteableException, CMSException ) [pure virtual]**

Sets a byte property.

#### Parameters:

**name** The name of the property to retrieve.

**value** The value for the named property.

#### Exceptions:

**CMSException** (p. 1031) - if the name is an empty string.

**MessageNotWriteableException** (p. 2331) - if properties are read-only

Implemented in **activemq::commands::ActiveMQMessageTemplate**<  
**cms::BytesMessage** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::MapMessage** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::Message** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::StreamMessage** > (p. 376), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::TextMessage** > (p. 376), and **activemq::commands::ActiveMQMessageTemplate**<  
**cms::ObjectMessage** > (p. 376).

**6.435.3.27** **virtual void cms::Message::setCMSCorrelationID (const std::string & correlationId) throw ( CMSException ) [pure virtual]**

Sets the correlation ID for the message. A client can use the CMSCorrelationID header field to link one message with another. A typical use is to link a response message with its request message.

CMSCorrelationID can hold one of the following:

- A provider-specific message ID
- An application-specific String
- A provider-native byte[] value

Since each message sent by a CMS provider is assigned a message ID value, it is convenient to link messages via message ID. All message ID values must start with the 'ID:' prefix.

In some cases, an application (made up of several clients) needs to use an application-specific value for linking messages. For instance, an application may use CMSCorrelationID to hold a value referencing some external information. Application-specified values must not start with the 'ID:' prefix; this is reserved for provider-generated message ID values.

If a provider supports the native concept of correlation ID, a CMS client may need to assign specific CMSCorrelationID values to match those expected by clients that do not use the CMS API. A byte[] value is used for this purpose. CMS providers without native correlation ID values are not required to support byte[] values. The use of a byte[] value for CMSCorrelationID is non-portable.

**Parameters:**

*correlationId* The message ID of a message being referred to.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 377), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 377).

#### 6.435.3.28 `virtual void cms::Message::setCMSDeliveryMode (int mode) throw ( CMSEException )` [pure virtual]

Sets the **DeliveryMode** (p. 1478) for this message. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

**Parameters:**

*mode* **DeliveryMode** (p. 1478) enumerated value.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 377), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 377).

#### 6.435.3.29 `virtual void cms::Message::setCMSDestination (const Destination * destination) throw ( CMSEException )` [pure virtual]

Sets the **Destination** (p. 1480) object for this message. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

**Parameters:**

*destination* **Destination** (p. 1480) Object

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 377), `activemq::commands::ActiveMQMessageTemplate<`



cms::MapMessage > (p. 377), activemq::commands::ActiveMQMessageTemplate<  
 cms::Message > (p. 377), activemq::commands::ActiveMQMessageTemplate<  
 cms::StreamMessage > (p. 377), activemq::commands::ActiveMQMessageTemplate<  
 cms::TextMessage > (p. 377), and activemq::commands::ActiveMQMessageTemplate<  
 cms::ObjectMessage > (p. 377).

#### 6.435.3.30 virtual void cms::Message::setCMSExpiration (long long *expireTime*) throw ( CMSException ) [pure virtual]

Sets the message's expiration value. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

##### Parameters:

*expireTime* the message's expiration time

##### Exceptions:

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in **activemq::commands::ActiveMQMessageTemplate<**  
 cms::BytesMessage > (p. 378), **activemq::commands::ActiveMQMessageTemplate<**  
 cms::MapMessage > (p. 378), **activemq::commands::ActiveMQMessageTemplate<**  
 cms::Message > (p. 378), **activemq::commands::ActiveMQMessageTemplate<**  
 cms::StreamMessage > (p. 378), **activemq::commands::ActiveMQMessageTemplate<**  
 cms::TextMessage > (p. 378), and **activemq::commands::ActiveMQMessageTemplate<**  
 cms::ObjectMessage > (p. 378).

#### 6.435.3.31 virtual void cms::Message::setCMSMessageID (const std::string & *id*) throw ( CMSException ) [pure virtual]

Sets the message ID. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

##### Parameters:

*id* the ID of the message

##### Exceptions:

*CMSException* (p. 1031) - if an internal error occurs.

#### 6.435.3.32 virtual void cms::Message::setCMSPriority (int *priority*) throw ( CMSException ) [pure virtual]

Sets the Priority Value for this message. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

##### Parameters:

*priority* priority value for this message

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 378), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 378).

#### 6.435.3.33 `virtual void cms::Message::setCMSRedelivered (bool redelivered) throw ( CMSException )` [pure virtual]

Specifies whether this message is being redelivered. This field is set at the time the message is delivered. This method can be used to change the value for a message that has been received.

**Parameters:**

*redelivered* boolean redelivered value

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 378), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 378), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 378).

#### 6.435.3.34 `virtual void cms::Message::setCMSReplyTo (const cms::Destination * destination) throw ( CMSException )` [pure virtual]

Sets the **Destination** (p.1480) object to which a reply to this message should be sent. The CMSReplyTo header field contains the destination where a reply to the current message should be sent. If it is null, no reply is expected. The destination may be either a **Queue** (p. 2674) object or a **Topic** (p. 3215) object.

Messages sent with a null CMSReplyTo value may be a notification of some event, or they may just be some data the sender thinks is of interest.

Messages with a CMSReplyTo value typically expect a response. A response is optional; it is up to the client to decide. These messages are called requests. A message sent in response to a request is called a reply.

In some cases a client may wish to match a request it sent earlier with a reply it has just received. The client can use the CMSCorrelationID header field for this purpose.

**Parameters:**

*destination* **Destination** (p. 1480) to which to send a response to this message

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 379), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 379).

### 6.435.3.35 `virtual void cms::Message::setCMSTimestamp (long long timeStamp) throw ( CMSEException )` [pure virtual]

Sets the message timestamp. CMS providers set this field when a message is sent. This method can be used to change the value for a message that has been received.

**Parameters:**

*timeStamp* integer time stamp value

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 379), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 379).

### 6.435.3.36 `virtual void cms::Message::setCMSType (const std::string & type) throw ( CMSEException )` [pure virtual]

Sets the message type. Some CMS providers use a message repository that contains the definitions of messages sent by applications. The CMSType header field may reference a message's definition in the provider's repository.

The CMS API does not define a standard message definition repository, nor does it define a naming policy for the definitions it contains.

Some messaging systems require that a message type definition for each application message be created and that each message specify its type. In order to work with such CMS providers, CMS clients should assign a value to CMSType, whether the application makes use of it or not. This ensures that the field is properly set for those providers that require it.

To ensure portability, CMS clients should use symbolic values for CMSType that can be configured at installation time to the values defined in the current provider's message repository. If string literals are used, they may not be valid type names for some CMS providers.

**Parameters:**

*type* the message type

See also:

`getCMSType` (p. 2174)

Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 379), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 379), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 379).

**6.435.3.37** `virtual void cms::Message::setDoubleProperty (const std::string & name, double value) throw ( MessageNotWriteableException, CMSEException ) [pure virtual]`

Sets a double property.

Parameters:

*name* The name of the property to retrieve.

*value* The value for the named property.

Exceptions:

*CMSEException* (p. 1031) - if the name is an empty string.

*MessageNotWriteableException* (p. 2331) - if properties are read-only

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage >` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage >` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::Message >` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage >` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage >` (p. 380), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage >` (p. 380).

**6.435.3.38** `virtual void cms::Message::setFloatProperty (const std::string & name, float value) throw ( MessageNotWriteableException, CMSEException ) [pure virtual]`

Sets a float property.

Parameters:

*name* The name of the property to retrieve.

*value* The value for the named property.

Exceptions:

*CMSEException* (p. 1031) - if the name is an empty string.

*MessageNotWriteableException* (p. 2331) - if properties are read-only

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 380), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 380).

**6.435.3.39** `virtual void cms::Message::setIntProperty (const std::string & name, int value) throw ( MessageNotWriteableException, CMSEException )` [pure virtual]

Sets a int property.

#### Parameters:

*name* The name of the property to retrieve.

*value* The value for the named property.

#### Exceptions:

*CMSEException* (p. 1031) - if the name is an empty string.

*MessageNotWriteableException* (p. 2331) - if properties are read-only

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::MapMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::Message>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::StreamMessage>` (p. 380), `activemq::commands::ActiveMQMessageTemplate<cms::TextMessage>` (p. 380), and `activemq::commands::ActiveMQMessageTemplate<cms::ObjectMessage>` (p. 380).

**6.435.3.40** `virtual void cms::Message::setLongProperty (const std::string & name, long long value) throw ( MessageNotWriteableException, CMSEException )` [pure virtual]

Sets a long property.

#### Parameters:

*name* The name of the property to retrieve.

*value* The value for the named property.

#### Exceptions:

*CMSEException* (p. 1031) - if the name is an empty string.

*MessageNotWriteableException* (p. 2331) - if properties are read-only

Implemented in `activemq::commands::ActiveMQMessageTemplate<cms::BytesMessage>` (p. 381), `activemq::commands::ActiveMQMessageTemplate<`

**cms::MapMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::Message** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::StreamMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::TextMessage** > (p. 381), and **activemq::commands::ActiveMQMessageTemplate**<  
**cms::ObjectMessage** > (p. 381).

**6.435.3.41** **virtual void cms::Message::setShortProperty (const std::string & name, short value) throw ( MessageNotWriteableException, CMSEException )** [pure virtual]

Sets a short property.

#### Parameters:

**name** The name of the property to retrieve.

**value** The value for the named property.

#### Exceptions:

**CMSEException** (p. 1031) - if the name is an empty string.

**MessageNotWriteableException** (p. 2331) - if properties are read-only

Implemented in **activemq::commands::ActiveMQMessageTemplate**<  
**cms::BytesMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::MapMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::Message** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::StreamMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::TextMessage** > (p. 381), and **activemq::commands::ActiveMQMessageTemplate**<  
**cms::ObjectMessage** > (p. 381).

**6.435.3.42** **virtual void cms::Message::setStringProperty (const std::string & name, const std::string & value) throw ( MessageNotWriteableException, CMSEException )** [pure virtual]

Sets a string property.

#### Parameters:

**name** The name of the property to retrieve.

**value** The value for the named property.

#### Exceptions:

**CMSEException** (p. 1031) - if the name is an empty string.

**MessageNotWriteableException** (p. 2331) - if properties are read-only

Implemented in **activemq::commands::ActiveMQMessageTemplate**<  
**cms::BytesMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::MapMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::Message** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::StreamMessage** > (p. 381), **activemq::commands::ActiveMQMessageTemplate**<  
**cms::TextMessage** > (p. 381), and **activemq::commands::ActiveMQMessageTemplate**<  
**cms::ObjectMessage** > (p. 381).

The documentation for this class was generated from the following file:

- `src/main/cms/Message.h`

## 6.436 activemq::commands::MessageAck Class Reference

#include <src/main/activemq/commands/MessageAck.h> Inheritance diagram for activemq::commands::MessageAck:

### Public Member Functions

- **MessageAck** ()
- virtual **~MessageAck** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **MessageAck \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const **Pointer**< **TransactionId** > & **getTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getTransactionId** ()
- virtual void **setTransactionId** (const **Pointer**< **TransactionId** > &transactionId)
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual unsigned char **getAckType** () const
- virtual void **setAckType** (unsigned char ackType)
- virtual const **Pointer**< **MessageId** > & **getFirstMessageId** () const
- virtual **Pointer**< **MessageId** > & **getFirstMessageId** ()
- virtual void **setFirstMessageId** (const **Pointer**< **MessageId** > &firstMessageId)
- virtual const **Pointer**< **MessageId** > & **getLastMessageId** () const
- virtual **Pointer**< **MessageId** > & **getLastMessageId** ()
- virtual void **setLastMessageId** (const **Pointer**< **MessageId** > &lastMessageId)
- virtual int **getMessageCount** () const
- virtual void **setMessageCount** (int messageCount)
- virtual bool **isMessageAck** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor)  
throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*



## Static Public Attributes

- static const unsigned char **ID\_MESSAGEACK** = 22

## Protected Member Functions

- **MessageAck** (const MessageAck &)
- **MessageAck & operator=** (const MessageAck &)

## Protected Attributes

- **Pointer< ActiveMQDestination > destination**
- **Pointer< TransactionId > transactionId**
- **Pointer< ConsumerId > consumerId**
- unsigned char **ackType**
- **Pointer< MessageId > firstMessageId**
- **Pointer< MessageId > lastMessageId**
- int **messageCount**

### 6.436.1 Constructor & Destructor Documentation

**6.436.1.1** **activemq::commands::MessageAck::MessageAck** (const MessageAck &)  
[inline, protected]

**6.436.1.2** **activemq::commands::MessageAck::MessageAck** ()

**6.436.1.3** **virtual activemq::commands::MessageAck::~~MessageAck** () [virtual]

### 6.436.2 Member Function Documentation

**6.436.2.1** **virtual MessageAck\* activemq::commands::MessageAck::cloneDataStructure** ()  
const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.436.2.2** **virtual void activemq::commands::MessageAck::copyDataStructure**  
(const DataStructure \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.436.2.3** `virtual bool activemq::commands::MessageAck::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.436.2.4** `virtual unsigned char activemq::commands::MessageAck::getAckType () const` [virtual]

**6.436.2.5** `virtual Pointer<ConsumerId>& activemq::commands::MessageAck::getConsumerId ()` [virtual]

**6.436.2.6** `virtual const Pointer<ConsumerId>& activemq::commands::MessageAck::getConsumerId () const` [virtual]

**6.436.2.7** `virtual unsigned char activemq::commands::MessageAck::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.436.2.8** virtual Pointer<ActiveMQDestination>& activemq::commands::MessageAck::getDestination ()  
[virtual]
- 6.436.2.9** virtual const Pointer<ActiveMQDestination>& activemq::commands::MessageAck::getDestination () const [virtual]
- 6.436.2.10** virtual Pointer<MessageId>& activemq::commands::MessageAck::getFirstMessageId ()  
[virtual]
- 6.436.2.11** virtual const Pointer<MessageId>& activemq::commands::MessageAck::getFirstMessageId ()  
const [virtual]
- 6.436.2.12** virtual Pointer<MessageId>& activemq::commands::MessageAck::getLastMessageId ()  
[virtual]
- 6.436.2.13** virtual const Pointer<MessageId>& activemq::commands::MessageAck::getLastMessageId ()  
const [virtual]
- 6.436.2.14** virtual int activemq::commands::MessageAck::getMessageCount () const  
[virtual]
- 6.436.2.15** virtual Pointer<TransactionId>& activemq::commands::MessageAck::getTransactionId ()  
[virtual]
- 6.436.2.16** virtual const Pointer<TransactionId>& activemq::commands::MessageAck::getTransactionId () const  
[virtual]
- 6.436.2.17** virtual bool activemq::commands::MessageAck::isMessageAck () const  
[inline, virtual]

**Returns:**

an answer of true to the `isMessageAck()` (p. 2191) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).

- 6.436.2.18 `MessageAck& activemq::commands::MessageAck::operator= (const MessageAck &) [inline, protected]`
- 6.436.2.19 `virtual void activemq::commands::MessageAck::setAckType (unsigned char ackType) [virtual]`
- 6.436.2.20 `virtual void activemq::commands::MessageAck::setConsumerId (const Pointer< ConsumerId > & consumerId) [virtual]`
- 6.436.2.21 `virtual void activemq::commands::MessageAck::setDestination (const Pointer< ActiveMQDestination > & destination) [virtual]`
- 6.436.2.22 `virtual void activemq::commands::MessageAck::setFirstMessageId (const Pointer< MessageId > & firstMessageId) [virtual]`
- 6.436.2.23 `virtual void activemq::commands::MessageAck::setLastMessageId (const Pointer< MessageId > & lastMessageId) [virtual]`
- 6.436.2.24 `virtual void activemq::commands::MessageAck::setMessageCount (int messageCount) [virtual]`
- 6.436.2.25 `virtual void activemq::commands::MessageAck::setTransactionId (const Pointer< TransactionId > & transactionId) [virtual]`
- 6.436.2.26 `virtual std::string activemq::commands::MessageAck::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

- 6.436.2.27 `virtual Pointer<Command> activemq::commands::MessageAck::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p.2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p.1067).

### 6.436.3 Field Documentation

- 6.436.3.1 `unsigned char activemq::commands::MessageAck::ackType` [protected]
- 6.436.3.2 `Pointer<ConsumerId> activemq::commands::MessageAck::consumerId` [protected]
- 6.436.3.3 `Pointer<ActiveMQDestination> activemq::commands::MessageAck::destination` [protected]
- 6.436.3.4 `Pointer<MessageId> activemq::commands::MessageAck::firstMessageId` [protected]
- 6.436.3.5 `const unsigned char activemq::commands::MessageAck::ID_ - MESSAGEACK = 22` [static]
- 6.436.3.6 `Pointer<MessageId> activemq::commands::MessageAck::lastMessageId` [protected]
- 6.436.3.7 `int activemq::commands::MessageAck::messageCount` [protected]
- 6.436.3.8 `Pointer<TransactionId> activemq::commands::MessageAck::transactionId` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/MessageAck.h`

## 6.437 activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2194).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessageAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller:

### Public Member Functions

- **MessageAckMarshaller** ()
- virtual **~MessageAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.437.1 Detailed Description

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2194). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.437.2 Constructor & Destructor Documentation

**6.437.2.1** `activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::MessageAckMarshaller()` [inline]

**6.437.2.2** `virtual activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::~~MessageAckMarshaller()` [inline, virtual]

## 6.437.3 Member Function Documentation

**6.437.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.437.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.437.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.437.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.437.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).



**6.437.3.6** virtual void activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.437.3.7** virtual void activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/MessageAckMarshaller.h

## 6.438 activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2198).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessageAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller:

### Public Member Functions

- **MessageAckMarshaller** ()
- virtual **~MessageAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.438.1 Detailed Description

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2198). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.438.2 Constructor & Destructor Documentation

**6.438.2.1** `activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::MessageAckMarshaller()` [inline]

**6.438.2.2** `virtual activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::~~MessageAckMarshaller()` [inline, virtual]

## 6.438.3 Member Function Documentation

**6.438.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.438.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.438.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.438.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.438.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.438.3.6** virtual void activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.438.3.7** virtual void activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/MessageAckMarshaller.h

## 6.439 activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2202).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessageAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller:

### Public Member Functions

- **MessageAckMarshaller** ()
- virtual **~MessageAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.439.1 Detailed Description

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2202). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.439.2 Constructor & Destructor Documentation

**6.439.2.1** `activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::MessageAckMarshaller()` [inline]

**6.439.2.2** `virtual activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::~~MessageAckMarshaller()` [inline, virtual]

## 6.439.3 Member Function Documentation

**6.439.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.439.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.439.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.439.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.439.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).



**6.439.3.6** virtual void activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.439.3.7** virtual void activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/MessageAckMarshaller.h

## 6.440 activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2206).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessageAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller:

### Public Member Functions

- **MessageAckMarshaller** ()
- virtual **~MessageAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.440.1 Detailed Description

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2206). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.440.2 Constructor & Destructor Documentation

**6.440.2.1** `activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::MessageAckMarshaller()` `[inline]`

**6.440.2.2** `virtual activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::~~MessageAckMarshaller()` `[inline, virtual]`

## 6.440.3 Member Function Documentation

**6.440.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::createObject() const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.440.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::getDataStructureType() const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.440.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.440.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.440.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.440.3.6** virtual void activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.440.3.7** virtual void activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/MessageAckMarshaller.h

## 6.441 activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2210).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessageAckMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller:

### Public Member Functions

- **MessageAckMarshaller** ()
- virtual **~MessageAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.441.1 Detailed Description

Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2210). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.441.2 Constructor & Destructor Documentation

**6.441.2.1** `activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::MessageAckMarshaller()` [inline]

**6.441.2.2** `virtual activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::~~MessageAckMarshaller()` [inline, virtual]

## 6.441.3 Member Function Documentation

**6.441.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.441.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.441.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.441.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.441.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).



**6.441.3.6** virtual void activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.441.3.7** virtual void activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/MessageAckMarshaller.h

## 6.442 cms::MessageConsumer Class Reference

A client uses a `MessageConsumer` (p. 2214) to received messages from a destination.

```
#include <src/main/cms/MessageConsumer.h> Inheritance diagram for cms::MessageConsumer:
```

### Public Member Functions

- virtual `~MessageConsumer ()`
- virtual `Message * receive ()=0 throw ( CMSEException )`  
*Synchronously Receive a **Message** (p. 2163).*
- virtual `Message * receive (int millisecs)=0 throw ( CMSEException )`  
*Synchronously Receive a **Message** (p. 2163), time out after defined interval.*
- virtual `Message * receiveNoWait ()=0 throw ( CMSEException )`  
*Receive a **Message** (p. 2163), does not wait if there isn't a new message to read, returns NULL if nothing read.*
- virtual void `setMessageListener (MessageListener *listener)=0 throw ( CMSEException )`  
*Sets the **MessageListener** (p. 2304) that this class will send notifs on.*
- virtual `MessageListener * getMessageListener () const =0 throw ( CMSEException )`  
*Gets the **MessageListener** (p. 2304) that this class will send new **Message** (p. 2163) notification events to.*
- virtual std::string `getMessageSelector () const =0 throw ( cms::CMSEException )`  
*Gets this message consumer's message selector expression.*

### 6.442.1 Detailed Description

A client uses a `MessageConsumer` (p. 2214) to received messages from a destination. A client may either synchronously receive a message consumer's messages or have the consumer asynchronously deliver them as they arrive.

For synchronous receipt, a client can request the next message from a message consumer using one of its `receive` methods. There are several variations of `receive` that allow a client to poll or wait for the next message.

For asynchronous delivery, a client can register a `MessageListener` (p. 2304) object with a message consumer. As messages arrive at the message consumer, it delivers them by calling the `MessageListener` (p. 2304)'s `onMessage` method.

When the `MessageConsumer`'s close method is called the method can block while an asynchronous message delivery is in progress or until a `receive` operation completes. A blocked consumer in a `receive` call will return a Null when the close method is called.

See also:

[MessageListener](#) (p. 2304)

Since:

1.0

## 6.442.2 Constructor & Destructor Documentation

**6.442.2.1** `virtual cms::MessageConsumer::~MessageConsumer () [inline, virtual]`

## 6.442.3 Member Function Documentation

**6.442.3.1** `virtual MessageListener* cms::MessageConsumer::getMessageListener () const throw ( CMSEException ) [pure virtual]`

Gets the [MessageListener](#) (p. 2304) that this class will send new [Message](#) (p. 2163) notification events to.

**Returns:**

The listener of messages received by this consumer

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in [activemq::cmsutil::CachedConsumer](#) (p. 954), and [activemq::core::ActiveMQConsumer](#) (p. 268).

**6.442.3.2** `virtual std::string cms::MessageConsumer::getMessageSelector () const throw ( cms::CMSEException ) [pure virtual]`

Gets this message consumer's message selector expression.

**Returns:**

This Consumer's selector expression or "".

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in [activemq::cmsutil::CachedConsumer](#) (p. 954), and [activemq::core::ActiveMQConsumer](#) (p. 268).

**6.442.3.3** `virtual Message* cms::MessageConsumer::receive (int millisecs) throw ( CMSEException ) [pure virtual]`

Synchronously Receive a [Message](#) (p. 2163), time out after defined interval. Returns null if nothing read.

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in `activemq::cmsutil::CachedConsumer` (p. 954), and `activemq::core::ActiveMQConsumer` (p. 269).

#### 6.442.3.4 `virtual Message* cms::MessageConsumer::receive () throw (CMSEException)` [pure virtual]

Synchronously Receive a **Message** (p. 2163).

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in `activemq::cmsutil::CachedConsumer` (p. 955), and `activemq::core::ActiveMQConsumer` (p. 269).

#### 6.442.3.5 `virtual Message* cms::MessageConsumer::receiveNoWait () throw (CMSEException)` [pure virtual]

Receive a **Message** (p. 2163), does not wait if there isn't a new message to read, returns NULL if nothing read.

**Returns:**

new message which the caller owns and must delete.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in `activemq::cmsutil::CachedConsumer` (p. 955), and `activemq::core::ActiveMQConsumer` (p. 269).

#### 6.442.3.6 `virtual void cms::MessageConsumer::setMessageListener (MessageListener * listener) throw (CMSEException)` [pure virtual]

Sets the **MessageListener** (p. 2304) that this class will send notifs on.

**Parameters:**

*listener* The listener of messages received by this consumer.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::CachedConsumer** (p. 955), and **activemq::core::ActiveMQConsumer** (p. 270).

The documentation for this class was generated from the following file:

- `src/main/cms/MessageConsumer.h`

## 6.443 activemq::cmsutil::MessageCreator Class Reference

Creates the user-defined message to be sent by the CmsTemplate (p. 1041).

```
#include <src/main/activemq/cmsutil/MessageCreator.h>
```

### Public Member Functions

- virtual `~MessageCreator()`
- virtual `cms::Message * createMessage (cms::Session *session)=0` throw ( cms::CMSException )

*Creates a message from the given session.*

### 6.443.1 Detailed Description

Creates the user-defined message to be sent by the CmsTemplate (p. 1041).

### 6.443.2 Constructor & Destructor Documentation

- 6.443.2.1 virtual `activemq::cmsutil::MessageCreator::~MessageCreator()`  
[inline, virtual]

### 6.443.3 Member Function Documentation

- 6.443.3.1 virtual `cms::Message* activemq::cmsutil::MessageCreator::createMessage (cms::Session * session)` throw ( cms::CMSException ) [pure virtual]

Creates a message from the given session.

#### Parameters:

*session* the CMS Session

#### Exceptions:

*cms::CMSException* (p. 1031) if thrown by CMS API methods

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/MessageCreator.h`

## 6.444 activemq::commands::MessageDispatch Class Reference

#include <src/main/activemq/commands/MessageDispatch.h> Inheritance diagram for activemq::commands::MessageDispatch:

### Public Member Functions

- **MessageDispatch** ()
- virtual **~MessageDispatch** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **MessageDispatch** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const **Pointer**< **Message** > & **getMessage** () const
- virtual **Pointer**< **Message** > & **getMessage** ()
- virtual void **setMessage** (const **Pointer**< **Message** > &message)
- virtual int **getRedeliveryCounter** () const
- virtual void **setRedeliveryCounter** (int redeliveryCounter)
- virtual bool **isMessageDispatch** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor)  
throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_MESSAGE\_DISPATCH** = 21

## Protected Member Functions

- `MessageDispatch` (`const MessageDispatch &`)
- `MessageDispatch & operator=` (`const MessageDispatch &`)

## Protected Attributes

- `Pointer< ConsumerId > consumerId`
- `Pointer< ActiveMQDestination > destination`
- `Pointer< Message > message`
- `int redeliveryCounter`

### 6.444.1 Constructor & Destructor Documentation

- 6.444.1.1 `activemq::commands::MessageDispatch::MessageDispatch` (`const MessageDispatch &`) [`inline`, `protected`]
- 6.444.1.2 `activemq::commands::MessageDispatch::MessageDispatch` ()
- 6.444.1.3 `virtual activemq::commands::MessageDispatch::~~MessageDispatch` () [`virtual`]

### 6.444.2 Member Function Documentation

- 6.444.2.1 `virtual MessageDispatch* activemq::commands::MessageDispatch::cloneDataStructure` () `const` [`virtual`]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

- 6.444.2.2 `virtual void activemq::commands::MessageDispatch::copyDataStructure` (`const DataStructure * src`) [`virtual`]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).



### 6.444.2.3 virtual bool activemq::commands::MessageDispatch::equals (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.444.2.4 virtual Pointer<ConsumerId>& activemq::commands::MessageDispatch::getConsumerId () [virtual]

### 6.444.2.5 virtual const Pointer<ConsumerId>& activemq::commands::MessageDispatch::getConsumerId () const [virtual]

### 6.444.2.6 virtual unsigned char activemq::commands::MessageDispatch::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.444.2.7 `virtual Pointer<ActiveMQDestination>& activemq::commands::MessageDispatch::getDestination ()`  
[virtual]
- 6.444.2.8 `virtual const Pointer<ActiveMQDestination>& activemq::commands::MessageDispatch::getDestination () const`  
[virtual]
- 6.444.2.9 `virtual Pointer<Message>& activemq::commands::MessageDispatch::getMessage ()`  
[virtual]
- 6.444.2.10 `virtual const Pointer<Message>& activemq::commands::MessageDispatch::getMessage () const` [virtual]
- 6.444.2.11 `virtual int activemq::commands::MessageDispatch::getRedeliveryCounter () const`  
[virtual]
- 6.444.2.12 `virtual bool activemq::commands::MessageDispatch::isMessageDispatch () const` [inline, virtual]

**Returns:**

an answer of true to the `isMessageDispatch()` (p. 2222) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 653).

- 6.444.2.13 `MessageDispatch& activemq::commands::MessageDispatch::operator= (const MessageDispatch &)` [inline, protected]
- 6.444.2.14 `virtual void activemq::commands::MessageDispatch::setConsumerId (const Pointer< ConsumerId > & consumerId)` [virtual]
- 6.444.2.15 `virtual void activemq::commands::MessageDispatch::setDestination (const Pointer< ActiveMQDestination > & destination)` [virtual]
- 6.444.2.16 `virtual void activemq::commands::MessageDispatch::setMessage (const Pointer< Message > & message)` [virtual]
- 6.444.2.17 `virtual void activemq::commands::MessageDispatch::setRedeliveryCounter (int redeliveryCounter)` [virtual]
- 6.444.2.18 `virtual std::string activemq::commands::MessageDispatch::toString () const` [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

**6.444.2.19** `virtual Pointer<Command> activemq::commands::MessageDispatch::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.444.3 Field Documentation

**6.444.3.1** `Pointer<ConsumerId> activemq::commands::MessageDispatch::consumerId` [protected]

**6.444.3.2** `Pointer<ActiveMQDestination> activemq::commands::MessageDispatch::destination` [protected]

**6.444.3.3** `const unsigned char activemq::commands::MessageDispatch::ID_ - MESSAGEDISPATCH = 21` [static]

**6.444.3.4** `Pointer<Message> activemq::commands::MessageDispatch::message` [protected]

**6.444.3.5** `int activemq::commands::MessageDispatch::redeliveryCounter` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/MessageDispatch.h`

## 6.445 activemq::core::MessageDispatchChannel Class Reference

#include <src/main/activemq/core/MessageDispatchChannel.h> Inheritance diagram for activemq::core::MessageDispatchChannel:

### Public Member Functions

- **MessageDispatchChannel** ()
- virtual **~MessageDispatchChannel** ()
- void **enqueue** (const **Pointer**< **MessageDispatch** > &message)  
*Add a Message to the Channel behind all pending message.*
- void **enqueueFirst** (const **Pointer**< **MessageDispatch** > &message)  
*Add a message to the front of the Channel.*
- bool **isEmpty** () const
- bool **isClosed** () const
- bool **isRunning** () const
- **Pointer**< **MessageDispatch** > **dequeue** (long long timeout) throw ( exceptions::ActiveMQException )  
*Used to get an enqueued message.*
- **Pointer**< **MessageDispatch** > **dequeueNoWait** ()  
*Used to get an enqueued message if there is one queued right now.*
- **Pointer**< **MessageDispatch** > **peek** () const  
*Peek in the Queue and return the first message in the Channel without removing it from the channel.*
- void **start** ()  
*Starts dispatch of messages from the Channel.*
- void **stop** ()  
*Stops dispatch of message from the Channel.*
- void **close** ()  
*Close this channel no messages will be dispatched after this method is called.*
- void **clear** ()  
*Clear the Channel, all pending messages are removed.*
- int **size** () const
- std::vector< **Pointer**< **MessageDispatch** > > **removeAll** ()  
*Remove all messages that are currently in the Channel and return them as a list of Messages.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )

*Locks the object.*

- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

## 6.445.1 Constructor & Destructor Documentation

### 6.445.1.1 activemq::core::MessageDispatchChannel::MessageDispatchChannel ()

### 6.445.1.2 virtual activemq::core::MessageDispatchChannel::~~MessageDispatchChannel () [virtual]

## 6.445.2 Member Function Documentation

### 6.445.2.1 void activemq::core::MessageDispatchChannel::clear ()

Clear the Channel, all pending messages are removed.

### 6.445.2.2 void activemq::core::MessageDispatchChannel::close ()

Close this channel no messages will be dispatched after this method is called.

### 6.445.2.3 `Pointer<MessageDispatch> activemq::core::MessageDispatchChannel::dequeue (long long timeout) throw ( exceptions::ActiveMQException )`

Used to get an enqueued message. The amount of time this method blocks is based on the timeout value. - if timeout==1 then it blocks until a message is received. - if timeout==0 then it tries to not block at all, it returns a message if it is available - if timeout>0 then it blocks up to timeout amount of time. Expired messages will be consumed by this method.

#### Returns:

null if we timeout or if the consumer is closed.

#### Exceptions:

*ActiveMQException*

### 6.445.2.4 `Pointer<MessageDispatch> activemq::core::MessageDispatchChannel::dequeueNoWait ()`

Used to get an enqueued message if there is one queued right now. If there is no waiting message then this method returns Null.

#### Returns:

a message if there is one in the queue.

### 6.445.2.5 `void activemq::core::MessageDispatchChannel::enqueue (const Pointer< MessageDispatch > & message)`

Add a Message to the Channel behind all pending message.

#### Parameters:

*message* - The message to add to the Channel.

### 6.445.2.6 `void activemq::core::MessageDispatchChannel::enqueueFirst (const Pointer< MessageDispatch > & message)`

Add a message to the front of the Channel.

#### Parameters:

*message* - The Message to add to the front of the Channel.

### 6.445.2.7 `bool activemq::core::MessageDispatchChannel::isClosed () const [inline]`

#### Returns:

has the Queue been closed.

**6.445.2.8** `bool activemq::core::MessageDispatchChannel::isEmpty () const`**Returns:**

true if there are no messages in the Channel.

**6.445.2.9** `bool activemq::core::MessageDispatchChannel::isRunning () const`  
[inline]**Returns:**

true if the Channel currently running and will dequeue message.

**6.445.2.10** `virtual void activemq::core::MessageDispatchChannel::lock () throw (`  
`decaf::lang::exceptions::RuntimeException )` [inline, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.445.2.11** `virtual void activemq::core::MessageDispatchChannel::notify`  
`() throw ( decaf::lang::exceptions::RuntimeException,`  
`decaf::lang::exceptions::IllegalMonitorStateException )` [inline,  
virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

**6.445.2.12** `virtual void activemq::core::MessageDispatchChannel::notifyAll`  
`() throw ( decaf::lang::exceptions::RuntimeException,`  
`decaf::lang::exceptions::IllegalMonitorStateException )` [inline,  
virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3125).

**6.445.2.13** `Pointer<MessageDispatch> activemq::core::MessageDispatchChannel::peek () const`

Peek in the Queue and return the first message in the Channel without removing it from the channel.

**Returns:**

a message if there is one in the queue.

**6.445.2.14** `std::vector< Pointer<MessageDispatch> > activemq::core::MessageDispatchChannel::removeAll ()`

Remove all messages that are currently in the Channel and return them as a list of Messages.

**Returns:**

a list of Messages that was previously in the Channel.

**6.445.2.15** `int activemq::core::MessageDispatchChannel::size () const`

**Returns:**

the number of Messages currently in the Channel.

**6.445.2.16** `void activemq::core::MessageDispatchChannel::start ()`

Starts dispatch of messages from the Channel.

**6.445.2.17** `void activemq::core::MessageDispatchChannel::stop ()`

Stops dispatch of message from the Channel.

**6.445.2.18** `virtual bool activemq::core::MessageDispatchChannel::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.



Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.445.2.19** `virtual void activemq::core::MessageDispatchChannel::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.445.2.20** `virtual void activemq::core::MessageDispatchChannel::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.445.2.21** `virtual void activemq::core::MessageDispatchChannel::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.445.2.22** `virtual void activemq::core::MessageDispatchChannel::wait  
( ) throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/activemq/core/MessageDispatchChannel.h`

## 6.446 activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2231).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessageDispatchMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller:

### Public Member Functions

- **MessageDispatchMarshaller** ()
- virtual **~MessageDispatchMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.446.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2231). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.446.2 Constructor & Destructor Documentation

**6.446.2.1** `activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::MessageDispatch`  
 () [inline]

**6.446.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::~~MessageDispatch`  
 () [inline, virtual]

## 6.446.3 Member Function Documentation

**6.446.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::createObject`  
 () const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.446.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::getDataStructure`  
 () const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.446.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::looseMarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.446.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.446.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.446.3.6** virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.446.3.7** virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/MessageDispatchMarshaller.h

## 6.447 activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2235).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessageDispatchMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller:

### Public Member Functions

- **MessageDispatchMarshaller** ()
- virtual **~MessageDispatchMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.447.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2235). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.447.2 Constructor & Destructor Documentation

**6.447.2.1** `activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::MessageDispatch`  
 () [inline]

**6.447.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::~~MessageDispatch`  
 () [inline, virtual]

## 6.447.3 Member Function Documentation

**6.447.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::createObject`  
 () const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.447.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::getDataStructure`  
 () const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.447.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::looseMarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.447.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.447.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.447.3.6** virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.447.3.7** virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/MessageDispatchMarshaller.h

## 6.448 activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2239).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessageDispatchMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller:

### Public Member Functions

- **MessageDispatchMarshaller** ()
- virtual **~MessageDispatchMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.448.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2239). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.448.2 Constructor & Destructor Documentation

**6.448.2.1** `activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::MessageDispatch`  
 () [inline]

**6.448.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::~~MessageDispatch`  
 () [inline, virtual]

## 6.448.3 Member Function Documentation

**6.448.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::createObject`  
 () const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.448.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::getDataStructure`  
 () const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.448.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::looseMarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.448.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.448.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.448.3.6** virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.448.3.7** virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/MessageDispatchMarshaller.h

## 6.449 activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2243).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessageDispatchMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller:

### Public Member Functions

- **MessageDispatchMarshaller** ()
- virtual **~MessageDispatchMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.449.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2243). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.449.2 Constructor & Destructor Documentation

**6.449.2.1** `activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::MessageDispatch`  
 () [inline]

**6.449.2.2** `virtual`  
`activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::~~MessageDispatch`  
 () [inline, virtual]

## 6.449.3 Member Function Documentation

**6.449.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::createObject`  
 () const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.449.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::getDataStructure`  
 () const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.449.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::looseMarshal`  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.449.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.449.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.449.3.6** virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.449.3.7** virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/MessageDispatchMarshaller.h

## 6.450 activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2247).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessageDispatchMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller:

### Public Member Functions

- **MessageDispatchMarshaller** ()
- virtual **~MessageDispatchMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.450.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2247). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.450.2 Constructor & Destructor Documentation

**6.450.2.1** `activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::MessageDispatch()` [inline]

**6.450.2.2** `virtual activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::~~MessageDispatch()` [inline, virtual]

## 6.450.3 Member Function Documentation

**6.450.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.450.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.450.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.450.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.450.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.450.3.6** virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.450.3.7** virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/MessageDispatchMarshaller.h

## 6.451 activemq::commands::MessageDispatchNotification Class Reference

#include <src/main/activemq/commands/MessageDispatchNotification.h> Inheritance diagram for activemq::commands::MessageDispatchNotification:

### Public Member Functions

- **MessageDispatchNotification** ()
- virtual **~MessageDispatchNotification** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **MessageDispatchNotification \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual long long **getDeliverySequenceId** () const
- virtual void **setDeliverySequenceId** (long long deliverySequenceId)
- virtual const **Pointer**< **MessageId** > & **getMessageId** () const
- virtual **Pointer**< **MessageId** > & **getMessageId** ()
- virtual void **setMessageId** (const **Pointer**< **MessageId** > &messageId)
- virtual bool **isMessageDispatchNotification** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_MESSAGE\_DISPATCH\_NOTIFICATION** = 90

## Protected Member Functions

- **MessageDispatchNotification** (const MessageDispatchNotification &)
- **MessageDispatchNotification & operator=** (const MessageDispatchNotification &)

## Protected Attributes

- **Pointer< ConsumerId > consumerId**
- **Pointer< ActiveMQDestination > destination**
- **long long deliverySequenceId**
- **Pointer< MessageId > messageId**

### 6.451.1 Constructor & Destructor Documentation

- 6.451.1.1** **activemq::commands::MessageDispatchNotification::MessageDispatchNotification** (const MessageDispatchNotification &) [inline, protected]
- 6.451.1.2** **activemq::commands::MessageDispatchNotification::MessageDispatchNotification** ()
- 6.451.1.3** **virtual**  
**activemq::commands::MessageDispatchNotification::~~MessageDispatchNotification** () [virtual]

### 6.451.2 Member Function Documentation

- 6.451.2.1** **virtual MessageDispatchNotification\* ac-**  
**tivemq::commands::MessageDispatchNotification::cloneDataStructure** ()  
**const** [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

- 6.451.2.2** **virtual void ac-**  
**tivemq::commands::MessageDispatchNotification::copyDataStructure**  
**(const DataStructure \* src)** [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

**src** - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).



### 6.451.2.3 virtual bool activemq::commands::MessageDispatchNotification::equals (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.451.2.4 virtual Pointer<ConsumerId>& activemq::commands::MessageDispatchNotification::getConsumerId () [virtual]

### 6.451.2.5 virtual const Pointer<ConsumerId>& activemq::commands::MessageDispatchNotification::getConsumerId () const [virtual]

### 6.451.2.6 virtual unsigned char activemq::commands::MessageDispatchNotification::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.451.2.7 `virtual long long activemq::commands::MessageDispatchNotification::getDeliverySequenceId () const [virtual]`
- 6.451.2.8 `virtual Pointer<ActiveMQDestination>& activemq::commands::MessageDispatchNotification::getDestination () [virtual]`
- 6.451.2.9 `virtual const Pointer<ActiveMQDestination>& activemq::commands::MessageDispatchNotification::getDestination () const [virtual]`
- 6.451.2.10 `virtual Pointer<MessageId>& activemq::commands::MessageDispatchNotification::getMessageId () [virtual]`
- 6.451.2.11 `virtual const Pointer<MessageId>& activemq::commands::MessageDispatchNotification::getMessageId () const [virtual]`
- 6.451.2.12 `virtual bool activemq::commands::MessageDispatchNotification::isMessageDispatchNotification () const [inline, virtual]`

**Returns:**

an answer of true to the `isMessageDispatchNotification()` (p. 2254) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 654).

- 6.451.2.13 `MessageDispatchNotification& activemq::commands::MessageDispatchNotification::operator= (const MessageDispatchNotification &) [inline, protected]`
- 6.451.2.14 `virtual void activemq::commands::MessageDispatchNotification::setConsumerId (const Pointer< ConsumerId > & consumerId) [virtual]`
- 6.451.2.15 `virtual void activemq::commands::MessageDispatchNotification::setDeliverySequenceId (long long deliverySequenceId) [virtual]`
- 6.451.2.16 `virtual void activemq::commands::MessageDispatchNotification::setDestination (const Pointer< ActiveMQDestination > & destination) [virtual]`
- 6.451.2.17 `virtual void activemq::commands::MessageDispatchNotification::setMessageId (const Pointer< MessageId > & messageId) [virtual]`
- 6.451.2.18 `virtual std::string activemq::commands::MessageDispatchNotification::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p.655).

- 6.451.2.19 `virtual Pointer<Command> activemq::commands::MessageDispatchNotification::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

#### Returns:

a **Response** (p.2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p.1067).

### 6.451.3 Field Documentation

- 6.451.3.1 `Pointer<ConsumerId> activemq::commands::MessageDispatchNotification::consumerId`  
[protected]
- 6.451.3.2 `long long activemq::commands::MessageDispatchNotification::deliverySequenceId`  
[protected]
- 6.451.3.3 `Pointer<ActiveMQDestination> activemq::commands::MessageDispatchNotification::destination`  
[protected]
- 6.451.3.4 `const unsigned char activemq::commands::MessageDispatchNotification::ID - MESSAGE_DISPATCH_NOTIFICATION = 90` [static]
- 6.451.3.5 `Pointer<MessageId> activemq::commands::MessageDispatchNotification::messageId`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/MessageDispatchNotification.h`

6.452 ac-

tivemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller

Class Reference

6.452 <sup>2261</sup>activemq::wireformat::openwire::marshal::v2::MessageDispatchNo

## Class Reference

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2257).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessageDispatchNotificationMarshaller  
diagram for activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller:

### Public Member Functions

- **MessageDispatchNotificationMarshaller** ()
- virtual ~**MessageDispatchNotificationMarshaller** ()
- virtual **commands::DataStructure** \* **createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.452.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2257). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.452.2 Constructor & Destructor Documentation

**6.452.2.1** `activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::MessageDispatchNotificationMarshaller()` [inline]

**6.452.2.2** `virtual activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::~MessageDispatchNotificationMarshaller()` [inline, virtual]

## 6.452.3 Member Function Documentation

**6.452.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::createDataStructure()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.452.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.452.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::marshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

**6.452 ac-**  
**ativemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller**  
**Class Reference** **2263**  
 Reimplemented from **ativemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
 (p. 686).

**6.452.3.4 virtual void ac-**  
**ativemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::looseU**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **ativemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
 (p. 687).

**6.452.3.5 virtual int ac-**  
**ativemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::tightM**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*,**  
**utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **ativemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
 (p. 688).

**6.452.3.6** virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.452.3.7** virtual void activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/MessageDispatchNotificationMarshaller.h



6.453 ac-

tivemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller

Class Reference

6.453 ~~activemq::wireformat::openwire::marshal::v4::MessageDispatchNo~~<sup>2265</sup>

## Class Reference

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2261).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessageDispatchNotificationMarshaller  
diagram for activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller:

## Public Member Functions

- **MessageDispatchNotificationMarshaller** ()
- virtual **~MessageDispatchNotificationMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.453.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2261). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.453.2 Constructor & Destructor Documentation

**6.453.2.1** `activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::MessageDispatchNotificationMarshaller()` [inline]

**6.453.2.2** `virtual activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::~MessageDispatchNotificationMarshaller()` [inline, virtual]

### 6.453.3 Member Function Documentation

**6.453.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::createDataStructure()` const [virtual]

Creates a new instance of this marshalable type.

#### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.453.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

#### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.453.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::marshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

**6.453** **activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller**  
**Class Reference** 2267  
 Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
 (p. 672).

**6.453.3.4** **virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
 (p. 673).

**6.453.3.5** **virtual int activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::tightMarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )** [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
 (p. 674).

**6.453.3.6** virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.453.3.7** virtual void activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/MessageDispatchNotificationMarshaller.h

6.454 ac-

tivemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller

Class Reference

6.454 ~~activemq::wireformat::openwire::marshal::v3::MessageDispatchNo~~<sup>2269</sup>

## Class Reference

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2265).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessageDispatchNotificationMarshaller  
diagram for activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller:

### Public Member Functions

- **MessageDispatchNotificationMarshaller** ()
- virtual ~**MessageDispatchNotificationMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.454.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2265). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.454.2 Constructor & Destructor Documentation

**6.454.2.1** `activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::MessageDispatchNotificationMarshaller()` [inline]

**6.454.2.2** `virtual activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::~MessageDispatchNotificationMarshaller()` [inline, virtual]

## 6.454.3 Member Function Documentation

**6.454.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::createDataStructure()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.454.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.454.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::marshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

**6.454** **activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller**  
**Class Reference** 2271  
 Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
 (p. 658).

**6.454.3.4** **virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
 (p. 659).

**6.454.3.5** **virtual int activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )** [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
 (p. 660).

**6.454.3.6** `virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

**6.454.3.7** `virtual void activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/MessageDispatchNotificationMarshaller.h`



6.455 ac-

tivemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller

Class Reference

6.455 — activemq::wireformat::openwire::marshal::v1::MessageDispatchNo<sup>2273</sup>

## Class Reference

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2269).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessageDispatchNotificationMarshaller  
diagram for activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller:

## Public Member Functions

- **MessageDispatchNotificationMarshaller** ()
- virtual **~MessageDispatchNotificationMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.455.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2269). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.455.2 Constructor & Destructor Documentation

**6.455.2.1** `activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::MessageDispatchNotificationMarshaller()` [inline]

**6.455.2.2** `virtual activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::~MessageDispatchNotificationMarshaller()` [inline, virtual]

## 6.455.3 Member Function Documentation

**6.455.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::createDataStructure()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.455.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.455.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::marshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

**6.455 ac-**  
**ativemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller**  
**Class Reference** 2275  
 Reimplemented from **ativemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
 (p. 665).

**6.455.3.4 virtual void ac-**  
**ativemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::looseU**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure**  
**\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (**  
**decaf::io::IOException ) [virtual]**

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **ativemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
 (p. 666).

**6.455.3.5 virtual int ac-**  
**ativemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::tightM**  
**(OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*,**  
**utils::BooleanStream \* *bs*) throw ( decaf::io::IOException**  
**) [virtual]**

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **ativemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
 (p. 667).

**6.455.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 668).

**6.455.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 669).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/MessageDispatchNotificationMarshaller.h`

6.456 ac-

tivemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller

Class Reference

6.456 — activemq::wireformat::openwire::marshal::v5::MessageDispatchNo<sup>2277</sup>

## Class Reference

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2273).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessageDispatchNotificationMarshaller  
diagram for activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller:

### Public Member Functions

- **MessageDispatchNotificationMarshaller** ()
- virtual ~**MessageDispatchNotificationMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.456.1 Detailed Description

Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller** (p. 2273). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.456.2 Constructor & Destructor Documentation

**6.456.2.1** `activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::MessageDispatchNotificationMarshaller()` [inline]

**6.456.2.2** `virtual activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::~MessageDispatchNotificationMarshaller()` [inline, virtual]

## 6.456.3 Member Function Documentation

**6.456.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::createDataStructure()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.456.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.456.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::marshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

**6.456** **activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller**  
**Class Reference** **2279**  
 Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
 (p. 679).

**6.456.3.4** **virtual void** **activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::looseUnmarshal**  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
 (p. 680).

**6.456.3.5** **virtual int** **activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::tightMarshal**  
 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
 (p. 681).

**6.456.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 682).

**6.456.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller::tightUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 683).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/MessageDispatchNotificationMarshaller.h`



## 6.457 cms::MessageEOFException Class Reference

This exception must be thrown when an unexpected end of stream has been reached when a **StreamMessage** (p. 3081) or **BytesMessage** (p. 938) is being read.

#include <src/main/cms/MessageEOFException.h> Inheritance diagram for cms::MessageEOFException:

### Public Member Functions

- **MessageEOFException** () throw ()
- **MessageEOFException** (const **MessageEOFException** &ex) throw ()
- **MessageEOFException** (const std::string &message, const std::exception \*cause) throw ()
- **MessageEOFException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**MessageEOFException** () throw ()

#### 6.457.1 Detailed Description

This exception must be thrown when an unexpected end of stream has been reached when a **StreamMessage** (p. 3081) or **BytesMessage** (p. 938) is being read.

Since:

1.3

#### 6.457.2 Constructor & Destructor Documentation

- 6.457.2.1** cms::MessageEOFException::MessageEOFException () throw ()
- 6.457.2.2** cms::MessageEOFException::MessageEOFException (const MessageEOFException & ex) throw ()
- 6.457.2.3** cms::MessageEOFException::MessageEOFException (const std::string & message, const std::exception \* cause) throw ()
- 6.457.2.4** cms::MessageEOFException::MessageEOFException (const std::string & message, const std::exception \* cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()
- 6.457.2.5** virtual cms::MessageEOFException::~~MessageEOFException () throw ()  
[virtual]

The documentation for this class was generated from the following file:

- src/main/cms/MessageEOFException.h

## 6.458 cms::MessageFormatException Class Reference

This exception must be thrown when a CMS client attempts to use a data type not supported by a message or attempts to read data in a message as the wrong type.

#include <src/main/cms/MessageFormatException.h> Inheritance diagram for cms::MessageFormatException:

### Public Member Functions

- **MessageFormatException** () throw ()
- **MessageFormatException** (const **MessageFormatException** &ex) throw ()
- **MessageFormatException** (const std::string &message, const std::exception \*cause) throw ()
- **MessageFormatException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**MessageFormatException** () throw ()

### 6.458.1 Detailed Description

This exception must be thrown when a CMS client attempts to use a data type not supported by a message or attempts to read data in a message as the wrong type. It must also be thrown when equivalent type errors are made with message property values. For example, this exception must be thrown if **StreamMessage.readShort** (p. 3088) is used to read a boolean value.

Since:

1.3

### 6.458.2 Constructor & Destructor Documentation

- 6.458.2.1** cms::MessageFormatException::MessageFormatException () throw ()
- 6.458.2.2** cms::MessageFormatException::MessageFormatException (const MessageFormatException & ex) throw ()
- 6.458.2.3** cms::MessageFormatException::MessageFormatException (const std::string & message, const std::exception \* cause) throw ()
- 6.458.2.4** cms::MessageFormatException::MessageFormatException (const std::string & message, const std::exception \* cause, const std::vector< std::pair< std::string, int > > & stackTrace) throw ()
- 6.458.2.5** virtual cms::MessageFormatException::~MessageFormatException () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/MessageFormatException.h

## 6.459 activemq::commands::MessageId Class Reference

#include <src/main/activemq/commands/MessageId.h> Inheritance diagram for activemq::commands::MessageId:

### Public Types

- typedef **decaf::lang::PointerComparator**< MessageId > **COMPARATOR**

### Public Member Functions

- **MessageId** ()
- **MessageId** (const **MessageId** &other)
- virtual **~MessageId** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **MessageId \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ProducerId** > & **getProducerId** () const
- virtual **Pointer**< **ProducerId** > & **getProducerId** ()
- virtual void **setProducerId** (const **Pointer**< **ProducerId** > &producerId)
- virtual long long **getProducerSequenceId** () const
- virtual void **setProducerSequenceId** (long long producerSequenceId)
- virtual long long **getBrokerSequenceId** () const
- virtual void **setBrokerSequenceId** (long long brokerSequenceId)
- virtual int **compareTo** (const **MessageId** &value) const
- virtual bool **equals** (const **MessageId** &value) const
- virtual bool **operator==** (const **MessageId** &value) const
- virtual bool **operator<** (const **MessageId** &value) const
- **MessageId** & **operator=** (const **MessageId** &other)

### Static Public Attributes

- static const unsigned char **ID\_MESSAGEID** = 110

## Protected Attributes

- **Pointer< ProducerId > producerId**
- long long **producerSequenceId**
- long long **brokerSequenceId**

### 6.459.1 Member Typedef Documentation

**6.459.1.1** `typedef decaf::lang::PointerComparator<MessageId>  
activemq::commands::MessageId::COMPARATOR`

### 6.459.2 Constructor & Destructor Documentation

**6.459.2.1** `activemq::commands::MessageId::MessageId ()`

**6.459.2.2** `activemq::commands::MessageId::MessageId (const MessageId & other)`

**6.459.2.3** `virtual activemq::commands::MessageId::~~MessageId () [virtual]`

### 6.459.3 Member Function Documentation

**6.459.3.1** `virtual MessageId* activemq::commands::MessageId::cloneDataStructure  
() const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.459.3.2** `virtual int activemq::commands::MessageId::compareTo (const MessageId  
& value) const [virtual]`

**6.459.3.3** `virtual void activemq::commands::MessageId::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.459.3.4** `virtual bool activemq::commands::MessageId::equals (const MessageId & value) const [virtual]`

**6.459.3.5** `virtual bool activemq::commands::MessageId::equals (const DataStructure * value) const [virtual]`

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.459.3.6** `virtual long long activemq::commands::MessageId::getBrokerSequenceId () const [virtual]`

**6.459.3.7** `virtual unsigned char activemq::commands::MessageId::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.459.3.8 `virtual Pointer<ProducerId>& activemq::commands::MessageId::getProducerId ()`  
[virtual]
- 6.459.3.9 `virtual const Pointer<ProducerId>& activemq::commands::MessageId::getProducerId () const`  
[virtual]
- 6.459.3.10 `virtual long long activemq::commands::MessageId::getProducerSequenceId ()`  
`const` [virtual]
- 6.459.3.11 `virtual bool activemq::commands::MessageId::operator< (const MessageId & value) const` [virtual]
- 6.459.3.12 `MessageId& activemq::commands::MessageId::operator= (const MessageId & other)`
- 6.459.3.13 `virtual bool activemq::commands::MessageId::operator== (const MessageId & value) const` [virtual]
- 6.459.3.14 `virtual void activemq::commands::MessageId::setBrokerSequenceId (long long brokerSequenceId)` [virtual]
- 6.459.3.15 `virtual void activemq::commands::MessageId::setProducerId (const Pointer< ProducerId > & producerId)` [virtual]
- 6.459.3.16 `virtual void activemq::commands::MessageId::setProducerSequenceId (long long producerSequenceId)` [virtual]
- 6.459.3.17 `virtual std::string activemq::commands::MessageId::toString () const`  
[virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p.718).

## 6.459.4 Field Documentation

- 6.459.4.1 `long long activemq::commands::MessageId::brokerSequenceId`  
[protected]
- 6.459.4.2 `const unsigned char activemq::commands::MessageId::ID_MESSAGEID`  
`= 110` [static]
- 6.459.4.3 `Pointer<ProducerId> activemq::commands::MessageId::producerId`  
[protected]
- 6.459.4.4 `long long activemq::commands::MessageId::producerSequenceId`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/MessageId.h`

## 6.460 activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2284).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessageIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller:

### Public Member Functions

- **MessageIdMarshaller** ()
- virtual **~MessageIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.460.1 Detailed Description

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2284). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.460.2 Constructor & Destructor Documentation

**6.460.2.1** `activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::MessageIdMarshaller()` [inline]

**6.460.2.2** `virtual activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::~~MessageIdMarshaller()` [inline, virtual]

## 6.460.3 Member Function Documentation

**6.460.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.460.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.460.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.460.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.460.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.460.3.6** virtual void activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.460.3.7** virtual void activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/MessageIdMarshaller.h

## 6.461 activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2288).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessageIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller:

### Public Member Functions

- **MessageIdMarshaller** ()
- virtual **~MessageIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.461.1 Detailed Description

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2288). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.461.2 Constructor & Destructor Documentation

**6.461.2.1** `activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::MessageIdMarshaller()` [inline]

**6.461.2.2** `virtual activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::~~MessageIdMarshaller()` [inline, virtual]

## 6.461.3 Member Function Documentation

**6.461.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.461.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.461.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.461.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.461.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.461.3.6** virtual void activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.461.3.7** virtual void activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/MessageIdMarshaller.h

## 6.462 activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2292).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessageIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller:

### Public Member Functions

- **MessageIdMarshaller** ()
- virtual **~MessageIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.462.1 Detailed Description

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2292). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.462.2 Constructor & Destructor Documentation

**6.462.2.1** `activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::MessageIdMarshaller()` [inline]

**6.462.2.2** `virtual activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::~~MessageIdMarshaller()` [inline, virtual]

## 6.462.3 Member Function Documentation

**6.462.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.462.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.462.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.462.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.462.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.462.3.6** virtual void activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.462.3.7** virtual void activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/MessageIdMarshaller.h

## 6.463 activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2296).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessageIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller:

### Public Member Functions

- **MessageIdMarshaller** ()
- virtual **~MessageIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.463.1 Detailed Description

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2296). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.463.2 Constructor & Destructor Documentation

**6.463.2.1** `activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::MessageIdMarshaller()` [inline]

**6.463.2.2** `virtual activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::~~MessageIdMarshaller()` [inline, virtual]

## 6.463.3 Member Function Documentation

**6.463.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.463.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.463.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.463.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.463.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.463.3.6** virtual void activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.463.3.7** virtual void activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/MessageIdMarshaller.h

## 6.464 activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2300).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessageIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller:

### Public Member Functions

- **MessageIdMarshaller** ()
- virtual **~MessageIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.464.1 Detailed Description

Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2300). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.464.2 Constructor & Destructor Documentation

**6.464.2.1** `activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::MessageIdMarshaller()` [inline]

**6.464.2.2** `virtual activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::~~MessageIdMarshaller()` [inline, virtual]

## 6.464.3 Member Function Documentation

**6.464.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.464.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.464.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.464.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.464.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.464.3.6** virtual void activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.464.3.7** virtual void activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/MessageIdMarshaller.h

## 6.465 cms::MessageListener Class Reference

A `MessageListener` (p. 2304) object is used to receive asynchronously delivered messages.

```
#include <src/main/cms/MessageListener.h>
```

### Public Member Functions

- virtual `~MessageListener ()`
- virtual void `onMessage (const Message *message)=0`

*Called asynchronously when a new message is received, the message reference can be to any of the **Message** (p. 2163) types.*

### 6.465.1 Detailed Description

A `MessageListener` (p. 2304) object is used to receive asynchronously delivered messages.

Since:

1.0

### 6.465.2 Constructor & Destructor Documentation

6.465.2.1 virtual `cms::MessageListener::~~MessageListener ()` [inline, virtual]

### 6.465.3 Member Function Documentation

6.465.3.1 virtual void `cms::MessageListener::onMessage (const Message * message)`  
[pure virtual]

Called asynchronously when a new message is received, the message reference can be to any of the **Message** (p. 2163) types. a dynamic cast is used to find out what type of message this is. The lifetime of this object is only guaranteed to be for life of the `onMessage` function after this call-back returns the message may no longer exists. Users should copy the data or clone the message if they wish to retain information that was contained in this **Message** (p. 2163).

It is considered a programming error for this method to throw an exception.

Parameters:

*message* **Message** (p. 2163) object {const} pointer recipient does not own.

The documentation for this class was generated from the following file:

- `src/main/cms/MessageListener.h`

## 6.466 activemq::wireformat::openwire::marshal::v2::MessageMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2305).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::MessageMarshaller:

### Public Member Functions

- **MessageMarshaller** ()
- virtual **~MessageMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.466.1 Detailed Description

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2305). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.466.2 Constructor & Destructor Documentation

**6.466.2.1** `activemq::wireformat::openwire::marshal::v2::MessageMarshaller::MessageMarshaller()` [inline]

**6.466.2.2** `virtual activemq::wireformat::openwire::marshal::v2::MessageMarshaller::~~MessageMarshaller()` [inline, virtual]

## 6.466.3 Member Function Documentation

**6.466.3.1** `virtual void activemq::wireformat::openwire::marshal::v2::MessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 194), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 230), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 339), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 362), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 403), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 496), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 595).

**6.466.3.2** `virtual void activemq::wireformat::openwire::marshal::v2::MessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 195), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 231), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 340), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 363), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 404), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 497), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 596).

```
6.466.3.3 virtual int ac-
          tivemq::wireformat::openwire::marshal::v2::MessageMarshaller::tightMarshal1
          (OpenWireFormat * wireFormat, commands::DataStructure *
           dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException
          ) [virtual]
```

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 195), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 231), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 340), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 363), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 404), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 497), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 596).

**6.466.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::MessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 689).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 195), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 231), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 340), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 363), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 404), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 497), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 596).

**6.466.3.5** `virtual void activemq::wireformat::openwire::marshal::v2::MessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 690).



Reimplemented in `activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller` (p. 196), `activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller` (p. 232), `activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller` (p. 341), `activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller` (p. 364), `activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller` (p. 405), `activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller` (p. 498), and `activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller` (p. 597).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h`

## 6.467 activemq::wireformat::openwire::marshal::v4::MessageMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2310).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::MessageMarshaller:

### Public Member Functions

- **MessageMarshaller** ()
- virtual **~MessageMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.467.1 Detailed Description

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2310). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.467.2 Constructor & Destructor Documentation

- 6.467.2.1 `activemq::wireformat::openwire::marshal::v4::MessageMarshaller::MessageMarshaller()` [inline]
- 6.467.2.2 `virtual activemq::wireformat::openwire::marshal::v4::MessageMarshaller::~~MessageMarshaller()` [inline, virtual]

## 6.467.3 Member Function Documentation

- 6.467.3.1 `virtual void activemq::wireformat::openwire::marshal::v4::MessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 186), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 222), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 331), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 354), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 395), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 488), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 587).

- 6.467.3.2 `virtual void activemq::wireformat::openwire::marshal::v4::MessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 187), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 223), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 332), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 355), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 396), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 489), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 588).

```
6.467.3.3  virtual int ac-
            tivemq::wireformat::openwire::marshal::v4::MessageMarshaller::tightMarshal1
            (OpenWireFormat * wireFormat,  commands::DataStructure *
            dataStructure,  utils::BooleanStream * bs) throw ( decaf::io::IOException
            ) [virtual]
```

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 187), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 223), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 332), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 355), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 396), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 489), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 588).

**6.467.3.4** virtual void activemq::wireformat::openwire::marshal::v4::MessageMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller** (p. 187), **activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller** (p. 223), **activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller** (p. 332), **activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller** (p. 355), **activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller** (p. 396), **activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller** (p. 489), and **activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller** (p. 588).

**6.467.3.5** virtual void activemq::wireformat::openwire::marshal::v4::MessageMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller` (p. 188), `activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller` (p. 224), `activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller` (p. 333), `activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller` (p. 356), `activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller` (p. 397), `activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller` (p. 490), and `activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller` (p. 589).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h`

## 6.468 activemq::wireformat::openwire::marshal::v3::MessageMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2315).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::MessageMarshaller:

### Public Member Functions

- **MessageMarshaller** ()
- virtual **~MessageMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.468.1 Detailed Description

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2315). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.468.2 Constructor & Destructor Documentation

**6.468.2.1** `activemq::wireformat::openwire::marshal::v3::MessageMarshaller::MessageMarshaller()` [inline]

**6.468.2.2** `virtual activemq::wireformat::openwire::marshal::v3::MessageMarshaller::~~MessageMarshaller()` [inline, virtual]

## 6.468.3 Member Function Documentation

**6.468.3.1** `virtual void activemq::wireformat::openwire::marshal::v3::MessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 178), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 214), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 323), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 346), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 387), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 480), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 579).

**6.468.3.2** `virtual void activemq::wireformat::openwire::marshal::v3::MessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source



**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 179), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 215), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 324), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 347), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 388), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 481), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 580).

```
6.468.3.3 virtual int ac-
          tivemq::wireformat::openwire::marshal::v3::MessageMarshaller::tightMarshal1
          (OpenWireFormat * wireFormat, commands::DataStructure *
           dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException
          ) [virtual]
```

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 179), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 215), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 324), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 347), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 388), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 481), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 580).

**6.468.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::MessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 179), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 215), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 324), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 347), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 388), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 481), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 580).

**6.468.3.5** `virtual void activemq::wireformat::openwire::marshal::v3::MessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller` (p. 180), `activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller` (p. 216), `activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller` (p. 325), `activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller` (p. 348), `activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller` (p. 389), `activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller` (p. 482), and `activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller` (p. 581).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h`

## 6.469 activemq::wireformat::openwire::marshal::v5::MessageMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2320).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::MessageMarshaller:

### Public Member Functions

- **MessageMarshaller** ()
- virtual **~MessageMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.469.1 Detailed Description

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2320). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.469.2 Constructor & Destructor Documentation

- 6.469.2.1 `activemq::wireformat::openwire::marshal::v5::MessageMarshaller::MessageMarshaller()` [inline]
- 6.469.2.2 `virtual activemq::wireformat::openwire::marshal::v5::MessageMarshaller::~~MessageMarshaller()` [inline, virtual]

## 6.469.3 Member Function Documentation

- 6.469.3.1 `virtual void activemq::wireformat::openwire::marshal::v5::MessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 190), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 226), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 335), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 358), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 399), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 492), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 591).

- 6.469.3.2 `virtual void activemq::wireformat::openwire::marshal::v5::MessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 191), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 227), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 336), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 359), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 400), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 493), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 592).

```
6.469.3.3  virtual int ac-
            tivemq::wireformat::openwire::marshal::v5::MessageMarshaller::tightMarshal1
            (OpenWireFormat * wireFormat,  commands::DataStructure *
            dataStructure,  utils::BooleanStream * bs) throw ( decaf::io::IOException
            ) [virtual]
```

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 191), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 227), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 336), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 359), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 400), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 493), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 592).

**6.469.3.4** virtual void activemq::wireformat::openwire::marshal::v5::MessageMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller** (p. 191), **activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller** (p. 227), **activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller** (p. 336), **activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller** (p. 359), **activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller** (p. 400), **activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller** (p. 493), and **activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller** (p. 592).

**6.469.3.5** virtual void activemq::wireformat::openwire::marshal::v5::MessageMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller` (p. 192), `activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller` (p. 228), `activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller` (p. 337), `activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller` (p. 360), `activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller` (p. 401), `activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller` (p. 494), and `activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller` (p. 593).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h`



## 6.470 activemq::wireformat::openwire::marshal::v1::MessageMarshaller Class Reference

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2325).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::MessageMarshaller:

### Public Member Functions

- **MessageMarshaller** ()
- virtual **~MessageMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )

*Write a object instance to data output stream.*

### 6.470.1 Detailed Description

Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2325). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.470.2 Constructor & Destructor Documentation

**6.470.2.1** `activemq::wireformat::openwire::marshal::v1::MessageMarshaller::MessageMarshaller()` [inline]

**6.470.2.2** `virtual activemq::wireformat::openwire::marshal::v1::MessageMarshaller::~~MessageMarshaller()` [inline, virtual]

## 6.470.3 Member Function Documentation

**6.470.3.1** `virtual void activemq::wireformat::openwire::marshal::v1::MessageMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 182), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 218), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 327), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 350), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 391), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 484), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 583).

**6.470.3.2** `virtual void activemq::wireformat::openwire::marshal::v1::MessageMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 183), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 219), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 328), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 351), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 392), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 485), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 584).

```
6.470.3.3 virtual int ac-
            tivemq::wireformat::openwire::marshal::v1::MessageMarshaller::tightMarshal1
            (OpenWireFormat * wireFormat, commands::DataStructure *
            dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException
            ) [virtual]
```

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 183), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 219), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 328), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 351), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 392), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 485), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 584).

**6.470.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::MessageMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 668).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 183), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 219), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 328), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 351), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 392), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 485), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 584).

**6.470.3.5** `virtual void activemq::wireformat::openwire::marshal::v1::MessageMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 669).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller` (p. 184), `activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller` (p. 220), `activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller` (p. 329), `activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller` (p. 352), `activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller` (p. 393), `activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller` (p. 486), and `activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller` (p. 585).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h`

## 6.471 cms::MessageNotReadableException Class Reference

This exception must be thrown when a CMS client attempts to read a write-only message.

#include <src/main/cms/MessageNotReadableException.h> Inheritance diagram for cms::MessageNotReadableException:

### Public Member Functions

- **MessageNotReadableException** () throw ()
- **MessageNotReadableException** (const **MessageNotReadableException** &ex) throw ()
- **MessageNotReadableException** (const std::string &message, const std::exception \*cause) throw ()
- **MessageNotReadableException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**MessageNotReadableException** () throw ()

### 6.471.1 Detailed Description

This exception must be thrown when a CMS client attempts to read a write-only message.

Since:

1.3

### 6.471.2 Constructor & Destructor Documentation

- 6.471.2.1 **cms::MessageNotReadableException::MessageNotReadableException** () throw ()
- 6.471.2.2 **cms::MessageNotReadableException::MessageNotReadableException** (const **MessageNotReadableException** & *ex*) throw ()
- 6.471.2.3 **cms::MessageNotReadableException::MessageNotReadableException** (const std::string & *message*, const std::exception \* *cause*) throw ()
- 6.471.2.4 **cms::MessageNotReadableException::MessageNotReadableException** (const std::string & *message*, const std::exception \* *cause*, const std::vector< std::pair< std::string, int > > & *stackTrace*) throw ()
- 6.471.2.5 **virtual cms::MessageNotReadableException::~~MessageNotReadableException** () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/MessageNotReadableException.h

## 6.472 cms::MessageNotWriteableException Class Reference

This exception must be thrown when a CMS client attempts to write to a read-only message.

#include <src/main/cms/MessageNotWriteableException.h> Inheritance diagram for cms::MessageNotWriteableException:

### Public Member Functions

- **MessageNotWriteableException** () throw ()
- **MessageNotWriteableException** (const **MessageNotWriteableException** &ex) throw ()
- **MessageNotWriteableException** (const std::string &message, const std::exception \*cause) throw ()
- **MessageNotWriteableException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**MessageNotWriteableException** () throw ()

### 6.472.1 Detailed Description

This exception must be thrown when a CMS client attempts to write to a read-only message.

Since:

1.3

### 6.472.2 Constructor & Destructor Documentation

- 6.472.2.1** cms::MessageNotWriteableException::MessageNotWriteableException () throw ()
- 6.472.2.2** cms::MessageNotWriteableException::MessageNotWriteableException (const **MessageNotWriteableException** & *ex*) throw ()
- 6.472.2.3** cms::MessageNotWriteableException::MessageNotWriteableException (const std::string & *message*, const std::exception \* *cause*) throw ()
- 6.472.2.4** cms::MessageNotWriteableException::MessageNotWriteableException (const std::string & *message*, const std::exception \* *cause*, const std::vector< std::pair< std::string, int > > & *stackTrace*) throw ()
- 6.472.2.5** virtual  
cms::MessageNotWriteableException::~~MessageNotWriteableException () throw () [virtual]

The documentation for this class was generated from the following file:

- src/main/cms/MessageNotWriteableException.h

## 6.473 cms::MessageProducer Class Reference

A client uses a `MessageProducer` (p. 2332) object to send messages to a **Destination** (p. 1480).

#include <src/main/cms/MessageProducer.h> Inheritance diagram for cms::MessageProducer:

### Public Member Functions

- virtual `~MessageProducer ()`
- virtual void **send** (**Message** \*message)=0 throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (**Message** \*message, int deliveryMode, int priority, long long timeToLive)=0 throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const **Destination** \*destination, **Message** \*message)=0 throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **send** (const **Destination** \*destination, **Message** \*message, int deliveryMode, int priority, long long timeToLive)=0 throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException )  
*Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.*
- virtual void **setDeliveryMode** (int mode)=0 throw ( CMSEException )  
*Sets the delivery mode for this Producer.*
- virtual int **getDeliveryMode** () const =0 throw ( CMSEException )  
*Gets the delivery mode for this Producer.*
- virtual void **setDisableMessageID** (bool value)=0 throw ( CMSEException )  
*Sets if **Message** (p. 2163) Ids are disabled for this Producer.*
- virtual bool **getDisableMessageID** () const =0 throw ( CMSEException )  
*Gets if **Message** (p. 2163) Ids are disabled for this Producer.*
- virtual void **setDisableMessageTimeStamp** (bool value)=0 throw ( CMSEException )  
*Sets if **Message** (p. 2163) Time Stamps are disabled for this Producer.*



- virtual bool **getDisableMessageTimeStamp** () const =0 throw ( CMSEException )  
*Gets if **Message** (p. 2163) Time Stamps are disabled for this Producer.*
- virtual void **setPriority** (int priority)=0 throw ( CMSEException )  
*Sets the Priority that this Producers sends messages at.*
- virtual int **getPriority** () const =0 throw ( CMSEException )  
*Gets the Priority level that this producer sends messages at.*
- virtual void **setTimeToLive** (long long time)=0 throw ( CMSEException )  
*Sets the Time to Live that this Producers sends messages with.*
- virtual long long **getTimeToLive** () const =0 throw ( CMSEException )  
*Gets the Time to Live that this producer sends messages with.*

### 6.473.1 Detailed Description

A client uses a **MessageProducer** (p. 2332) object to send messages to a **Destination** (p. 1480). A **MessageProducer** (p. 2332) object is created by passing a **Destination** (p. 1480) object to a message-producer creation method supplied by a session.

A client also has the option of creating a message producer without supplying a destination. In this case, a **Destination** (p. 1480) must be provided with every send operation. A typical use for this kind of message producer is to send replies to requests using the request's CMSReplyTo destination.

A client can specify a default delivery mode, priority, and time to live for messages sent by a message producer. It can also specify the delivery mode, priority, and time to live for an individual message.

A client can specify a time-to-live value in milliseconds for each message it sends. This value defines a message expiration time that is the sum of the message's time-to-live and the GMT when it is sent (for transacted sends, this is the time the client sends the message, not the time the transaction is committed).

**Since:**

1.0

### 6.473.2 Constructor & Destructor Documentation

**6.473.2.1** virtual cms::MessageProducer::~MessageProducer () [inline, virtual]

### 6.473.3 Member Function Documentation

**6.473.3.1** virtual int cms::MessageProducer::getDeliveryMode () const throw ( CMSEException ) [pure virtual]

Gets the delivery mode for this Producer.

**Returns:**

The **DeliveryMode** (p. 1478)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 958), and `activemq::core::ActiveMQProducer` (p. 408).

**6.473.3.2** `virtual bool cms::MessageProducer::getDisableMessageID () const throw ( CMSEException )` [pure virtual]

Gets if `Message` (p. 2163) Ids are disabled for this Producer.

**Returns:**

boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 959), and `activemq::core::ActiveMQProducer` (p. 408).

**6.473.3.3** `virtual bool cms::MessageProducer::getDisableMessageTimeStamp () const throw ( CMSEException )` [pure virtual]

Gets if `Message` (p. 2163) Time Stamps are disabled for this Producer.

**Returns:**

boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 959), and `activemq::core::ActiveMQProducer` (p. 408).

**6.473.3.4** `virtual int cms::MessageProducer::getPriority () const throw ( CMSEException )` [pure virtual]

Gets the Priority level that this producer sends messages at.

**Returns:**

int based priority level

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 959), and `activemq::core::ActiveMQProducer` (p. 409).

**6.473.3.5** virtual long long cms::MessageProducer::getTimeToLive () const throw ( CMSEException ) [pure virtual]

Gets the Time to Live that this producer sends messages with.

**Returns:**

Time to live value in milliseconds

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 959), and `activemq::core::ActiveMQProducer` (p. 409).

**6.473.3.6** virtual void cms::MessageProducer::send (const Destination \* *destination*, Message \* *message*, int *deliveryMode*, int *priority*, long long *timeToLive*) throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [pure virtual]

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it.

**Parameters:**

*destination* The destination on which to send the message

*message* The message to be sent.

*deliveryMode* The delivery mode to be used.

*priority* The priority for this message.

*timeToLive* The time to live value for this message in milliseconds.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs while sending the message.

*MessageFormatException* (p. 2278) - if an Invalid **Message** (p. 2163) is given.

*InvalidDestinationException* (p. 1809) - if a client uses this method with a **MessageProducer** (p. 2332) with an invalid destination.

*UnsupportedOperationException* (p. 3303) - if a client uses this method with a **MessageProducer** (p. 2332) that did not specify a destination at creation time.

Implemented in `activemq::cmsutil::CachedProducer` (p. 960), and `activemq::core::ActiveMQProducer` (p. 410).

**6.473.3.7** virtual void cms::MessageProducer::send (const Destination \* *destination*, Message \* *message*) throw ( cms::CMSEException, cms::MessageFormatException, cms::InvalidDestinationException, cms::UnsupportedOperationException ) [pure virtual]

Sends the message to the designated destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

*destination* The destination on which to send the message

*message* the message to be sent.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs while sending the message.

*MessageFormatException* (p. 2278) - if an Invalid **Message** (p. 2163) is given.

*InvalidDestinationException* (p. 1809) - if a client uses this method with a **MessageProducer** (p. 2332) with an invalid destination.

*UnsupportedOperationException* (p. 3303) - if a client uses this method with a **MessageProducer** (p. 2332) that did not specify a destination at creation time.

Implemented in **activemq::cmsutil::CachedProducer** (p. 960), and **activemq::core::ActiveMQProducer** (p. 410).

```
6.473.3.8 virtual void cms::MessageProducer::send (Message * message,
int deliveryMode, int priority, long long timeToLive)
throw ( cms::CMSEException, cms::MessageFormatException,
cms::InvalidDestinationException, cms::UnsupportedOperationException
) [pure virtual]
```

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it.

**Parameters:**

*message* The message to be sent.

*deliveryMode* The delivery mode to be used.

*priority* The priority for this message.

*timeToLive* The time to live value for this message in milliseconds.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs while sending the message.

*MessageFormatException* (p. 2278) - if an Invalid **Message** (p. 2163) is given.

*InvalidDestinationException* (p. 1809) - if a client uses this method with a **MessageProducer** (p. 2332) with an invalid destination.

*UnsupportedOperationException* (p. 3303) - if a client uses this method with a **MessageProducer** (p. 2332) that did not specify a destination at creation time.

Implemented in **activemq::cmsutil::CachedProducer** (p. 961), and **activemq::core::ActiveMQProducer** (p. 411).

```
6.473.3.9 virtual void cms::MessageProducer::send (Message * message)
throw ( cms::CMSEException, cms::MessageFormatException,
cms::InvalidDestinationException, cms::UnsupportedOperationException
) [pure virtual]
```

Sends the message to the default producer destination, but does not take ownership of the message, caller must still destroy it. Uses default values for deliveryMode, priority, and time to live.

**Parameters:**

*message* The message to be sent.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs while sending the message.

*MessageFormatException* (p. 2278) - if an Invalid **Message** (p. 2163) is given.

*InvalidDestinationException* (p. 1809) - if a client uses this method with a **MessageProducer** (p. 2332) with an invalid destination.

*UnsupportedOperationException* (p. 3303) - if a client uses this method with a **MessageProducer** (p. 2332) that did not specify a destination at creation time.

Implemented in **activemq::cmsutil::CachedProducer** (p. 961), and **activemq::core::ActiveMQProducer** (p. 411).

### 6.473.3.10 virtual void cms::MessageProducer::setDeliveryMode (int *mode*) throw ( CMSEException ) [pure virtual]

Sets the delivery mode for this Producer.

**Parameters:**

*mode* The **DeliveryMode** (p. 1478)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in **activemq::cmsutil::CachedProducer** (p. 962), and **activemq::core::ActiveMQProducer** (p. 412).

### 6.473.3.11 virtual void cms::MessageProducer::setDisableMessageID (bool *value*) throw ( CMSEException ) [pure virtual]

Sets if **Message** (p. 2163) Ids are disabled for this Producer.

**Parameters:**

*value* boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in **activemq::cmsutil::CachedProducer** (p. 962), and **activemq::core::ActiveMQProducer** (p. 412).

### 6.473.3.12 virtual void cms::MessageProducer::setDisableMessageTimeStamp (bool *value*) throw ( CMSEException ) [pure virtual]

Sets if **Message** (p. 2163) Time Stamps are disabled for this Producer.

**Parameters:**

*value* - boolean indicating enable / disable (true / false)

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 962), and `activemq::core::ActiveMQProducer` (p. 412).

### 6.473.3.13 `virtual void cms::MessageProducer::setPriority (int priority) throw ( CMSEException )` [pure virtual]

Sets the Priority that this Producers sends messages at.

**Parameters:**

*priority* int value for Priority level

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 962), and `activemq::core::ActiveMQProducer` (p. 412).

### 6.473.3.14 `virtual void cms::MessageProducer::setTimeToLive (long long time) throw ( CMSEException )` [pure virtual]

Sets the Time to Live that this Producers sends messages with. This value will be used if the time to live is not specified via the send method.

**Parameters:**

*time* default time to live value in milliseconds

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::cmsutil::CachedProducer` (p. 963), and `activemq::core::ActiveMQProducer` (p. 413).

The documentation for this class was generated from the following file:

- `src/main/cms/MessageProducer.h`

## 6.474 activemq::wireformat::openwire::utils::MessagePropertyInterceptor Class Reference

Used the base ActiveMQMessage class to intercept calls to get and set properties in order to capture the calls that use the reserved JMS properties and get and set them in the OpenWire Message properties.

```
#include <src/main/activemq/wireformat/openwire/utils/MessagePropertyInterceptor.h>
```

### Public Member Functions

- **MessagePropertyInterceptor** (commands::Message \*message, util::PrimitiveMap \*properties) throw ( decaf::lang::exceptions::NullPointerException )

*Constructor, accepts the Message that will be used to store JMS reserved property values, and the PrimitiveMap to get and set the rest to.*

- virtual ~**MessagePropertyInterceptor** ()
- virtual bool **getBooleanProperty** (const std::string &name) const  
*Gets a boolean property.*
- virtual unsigned char **getByteProperty** (const std::string &name) const  
*Gets a byte property.*
- virtual double **getDoubleProperty** (const std::string &name) const  
*Gets a double property.*
- virtual float **getFloatProperty** (const std::string &name) const  
*Gets a float property.*
- virtual int **getIntProperty** (const std::string &name) const  
*Gets a int property.*
- virtual long long **getLongProperty** (const std::string &name) const  
*Gets a long property.*
- virtual short **getShortProperty** (const std::string &name) const  
*Gets a short property.*
- virtual std::string **getStringProperty** (const std::string &name) const  
*Gets a string property.*
- virtual void **setBooleanProperty** (const std::string &name, bool value)  
*Sets a boolean property.*
- virtual void **setByteProperty** (const std::string &name, unsigned char value)  
*Sets a byte property.*
- virtual void **setDoubleProperty** (const std::string &name, double value)  
*Sets a double property.*

- virtual void **setFloatProperty** (const std::string &name, float value)  
*Sets a float property.*
- virtual void **setIntProperty** (const std::string &name, int value)  
*Sets a int property.*
- virtual void **setLongProperty** (const std::string &name, long long value)  
*Sets a long property.*
- virtual void **setShortProperty** (const std::string &name, short value)  
*Sets a short property.*
- virtual void **setStringProperty** (const std::string &name, const std::string &value)  
*Sets a string property.*

### 6.474.1 Detailed Description

Used the base ActiveMQMessage class to intercept calls to get and set properties in order to capture the calls that use the reserved JMS properties and get and set them in the OpenWire Message properties. Currently the only properties that are intercepted and handled are:

Name		Conversion Supported	-----	JMSXDeliveryCount	
Int, Long, String		JMSXGroupID		String	
		JMSXGroupSeq		Int, Long, String	

### 6.474.2 Constructor & Destructor Documentation

#### 6.474.2.1 activemq::wireformat::openwire::utils::MessagePropertyInterceptor::MessagePropertyInter (commands::Message \* *message*, util::PrimitiveMap \* *properties*) throw ( decaf::lang::exceptions::NullPointerException )

Constructor, accepts the Message that will be used to store JMS reserved property values, and the PrimitiveMap to get and set the rest to.

#### Parameters:

- message* - The Message to store reserved property data in
- properties* - The PrimitiveMap to store the rest of the properties in.

#### Exceptions:

- NullPointerException* if either param is NULL



**6.474.2.2** virtual  
activemq::wireformat::openwire::utils::MessagePropertyInterceptor::~~MessagePropertyInt  
( ) [virtual]

### 6.474.3 Member Function Documentation

**6.474.3.1** virtual bool ac-  
tivemq::wireformat::openwire::utils::MessagePropertyInterceptor::getBooleanProperty  
(const std::string & *name*) const [virtual]

Gets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.2** virtual unsigned char ac-  
tivemq::wireformat::openwire::utils::MessagePropertyInterceptor::getBytesProperty  
(const std::string & *name*) const [virtual]

Gets a byte property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.3** virtual double ac-  
tivemq::wireformat::openwire::utils::MessagePropertyInterceptor::getDoubleProperty  
(const std::string & *name*) const [virtual]

Gets a double property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.4** virtual float ac-  
tivemq::wireformat::openwire::utils::MessagePropertyInterceptor::getFloatProperty  
(const std::string & *name*) const [virtual]

Gets a float property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.5** `virtual int activemq::wireformat::openwire::utils::MessagePropertyInterceptor::getIntProperty(const std::string & name) const [virtual]`

Gets a int property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.6** `virtual long long activemq::wireformat::openwire::utils::MessagePropertyInterceptor::getLongProperty(const std::string & name) const [virtual]`

Gets a long property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.7** `virtual short activemq::wireformat::openwire::utils::MessagePropertyInterceptor::getShortProperty(const std::string & name) const [virtual]`

Gets a short property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.8** virtual std::string activemq::wireformat::openwire::utils::MessagePropertyInterceptor::getStringProperty(const std::string & *name*) const [virtual]

Gets a string property.

**Parameters:**

*name* The name of the property to retrieve.

**Returns:**

The value for the named property.

**6.474.3.9** virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setBooleanProperty(const std::string & *name*, bool *value*) [virtual]

Sets a boolean property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.10** virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setByteProperty(const std::string & *name*, unsigned char *value*) [virtual]

Sets a byte property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.11** virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setDoubleProperty(const std::string & *name*, double *value*) [virtual]

Sets a double property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.12** `virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setFloatProperty(const std::string & name, float value) [virtual]`

Sets a float property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.13** `virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setIntProperty(const std::string & name, int value) [virtual]`

Sets a int property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.14** `virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setLongProperty(const std::string & name, long long value) [virtual]`

Sets a long property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.15** `virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setShortProperty(const std::string & name, short value) [virtual]`

Sets a short property.

**Parameters:**

*name* The name of the property to retrieve.

*value* The value for the named property.

**6.474.3.16** `virtual void activemq::wireformat::openwire::utils::MessagePropertyInterceptor::setStringProperty(const std::string & name, const std::string & value) [virtual]`

Sets a string property.

**Parameters:**

- name* The name of the property to retrieve.
- value* The value for the named property.

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/utils/MessagePropertyInterceptor.h`

## 6.475 activemq::commands::MessagePull Class Reference

#include <src/main/activemq/commands/MessagePull.h> Inheritance diagram for activemq::commands::MessagePull:

### Public Member Functions

- **MessagePull** ()
- virtual **~MessagePull** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **MessagePull \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConsumerId** > & **getConsumerId** () const
- virtual **Pointer**< **ConsumerId** > & **getConsumerId** ()
- virtual void **setConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual long long **getTimeout** () const
- virtual void **setTimeout** (long long timeout)
- virtual const std::string & **getCorrelationId** () const
- virtual std::string & **getCorrelationId** ()
- virtual void **setCorrelationId** (const std::string &correlationId)
- virtual const **Pointer**< **MessageId** > & **getMessageId** () const
- virtual **Pointer**< **MessageId** > & **getMessageId** ()
- virtual void **setMessageId** (const **Pointer**< **MessageId** > &messageId)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_MESSAGEPULL** = 20

## Protected Member Functions

- `MessagePull (const MessagePull &)`
- `MessagePull & operator= (const MessagePull &)`

## Protected Attributes

- `Pointer< ConsumerId > consumerId`
- `Pointer< ActiveMQDestination > destination`
- `long long timeout`
- `std::string correlationId`
- `Pointer< MessageId > messageId`

## 6.475.1 Constructor & Destructor Documentation

**6.475.1.1** `activemq::commands::MessagePull::MessagePull (const MessagePull &)`  
[inline, protected]

**6.475.1.2** `activemq::commands::MessagePull::MessagePull ()`

**6.475.1.3** `virtual activemq::commands::MessagePull::~MessagePull ()` [virtual]

## 6.475.2 Member Function Documentation

**6.475.2.1** `virtual MessagePull* activemq::commands::MessagePull::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.475.2.2** `virtual void activemq::commands::MessagePull::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.475.2.3** `virtual bool activemq::commands::MessagePull::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.475.2.4** `virtual Pointer<ConsumerId>& activemq::commands::MessagePull::getConsumerId ()` [virtual]

**6.475.2.5** `virtual const Pointer<ConsumerId>& activemq::commands::MessagePull::getConsumerId () const` [virtual]

**6.475.2.6** `virtual std::string& activemq::commands::MessagePull::getCorrelationId ()` [virtual]

**6.475.2.7** `virtual const std::string& activemq::commands::MessagePull::getCorrelationId () const` [virtual]

**6.475.2.8** `virtual unsigned char activemq::commands::MessagePull::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).



- 6.475.2.9 `virtual Pointer<ActiveMQDestination>& activemq::commands::MessagePull::getDestination ()` [virtual]
- 6.475.2.10 `virtual const Pointer<ActiveMQDestination>& activemq::commands::MessagePull::getDestination () const` [virtual]
- 6.475.2.11 `virtual Pointer<MessageId>& activemq::commands::MessagePull::getMessageId ()` [virtual]
- 6.475.2.12 `virtual const Pointer<MessageId>& activemq::commands::MessagePull::getMessageId () const` [virtual]
- 6.475.2.13 `virtual long long activemq::commands::MessagePull::getTimeout () const` [virtual]
- 6.475.2.14 `MessagePull& activemq::commands::MessagePull::operator= (const MessagePull &)` [inline, protected]
- 6.475.2.15 `virtual void activemq::commands::MessagePull::setConsumerId (const Pointer< ConsumerId > & consumerId)` [virtual]
- 6.475.2.16 `virtual void activemq::commands::MessagePull::setCorrelationId (const std::string & correlationId)` [virtual]
- 6.475.2.17 `virtual void activemq::commands::MessagePull::setDestination (const Pointer< ActiveMQDestination > & destination)` [virtual]
- 6.475.2.18 `virtual void activemq::commands::MessagePull::setMessageId (const Pointer< MessageId > & messageId)` [virtual]
- 6.475.2.19 `virtual void activemq::commands::MessagePull::setTimeout (long long timeout)` [virtual]
- 6.475.2.20 `virtual std::string activemq::commands::MessagePull::toString () const` [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p.655).

- 6.475.2.21 `virtual Pointer<Command> activemq::commands::MessagePull::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the

visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

### 6.475.3 Field Documentation

**6.475.3.1** **Pointer<ConsumerId> activemq::commands::MessagePull::consumerId**  
[protected]

**6.475.3.2** **std::string activemq::commands::MessagePull::correlationId** [protected]

**6.475.3.3** **Pointer<ActiveMQDestination> activemq::commands::MessagePull::destination** [protected]

**6.475.3.4** **const unsigned char activemq::commands::MessagePull::ID \_-MESSAGEPULL = 20** [static]

**6.475.3.5** **Pointer<MessageId> activemq::commands::MessagePull::messageId**  
[protected]

**6.475.3.6** **long long activemq::commands::MessagePull::timeout** [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/MessagePull.h`

## 6.476 activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller Class Reference

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2351).

#include <src/main/activemq/wireformat/openwire/marshal/v2/MessagePullMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller:

### Public Member Functions

- **MessagePullMarshaller** ()
- virtual **~MessagePullMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.476.1 Detailed Description

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2351). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.476.2 Constructor & Destructor Documentation

**6.476.2.1** `activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::MessagePullMarshaller()` [inline]

**6.476.2.2** `virtual activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::~~MessagePullMarshaller()` [inline, virtual]

## 6.476.3 Member Function Documentation

**6.476.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.476.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.476.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.476.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.476.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.476.3.6** virtual void activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.476.3.7** virtual void activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/MessagePullMarshaller.h

## 6.477 activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller Class Reference

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2355).

#include <src/main/activemq/wireformat/openwire/marshal/v3/MessagePullMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller:

### Public Member Functions

- **MessagePullMarshaller** ()
- virtual **~MessagePullMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.477.1 Detailed Description

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2355). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.477.2 Constructor & Destructor Documentation

**6.477.2.1** `activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::MessagePullMarshaller()` [inline]

**6.477.2.2** `virtual activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::~~MessagePullMarshaller()` [inline, virtual]

## 6.477.3 Member Function Documentation

**6.477.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.477.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.477.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.477.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.477.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.477.3.6** virtual void activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.477.3.7** virtual void activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/MessagePullMarshaller.h

## 6.478 activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller Class Reference

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2359).

#include <src/main/activemq/wireformat/openwire/marshal/v1/MessagePullMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller:

### Public Member Functions

- **MessagePullMarshaller** ()
- virtual **~MessagePullMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.478.1 Detailed Description

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2359). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.478.2 Constructor & Destructor Documentation

**6.478.2.1** `activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::MessagePullMarshaller()` [inline]

**6.478.2.2** `virtual activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::~~MessagePullMarshaller()` [inline, virtual]

## 6.478.3 Member Function Documentation

**6.478.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.478.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.478.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.478.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.478.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.478.3.6** virtual void activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.478.3.7** virtual void activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/MessagePullMarshaller.h

## 6.479 activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller Class Reference

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2363).

#include <src/main/activemq/wireformat/openwire/marshal/v5/MessagePullMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller:

### Public Member Functions

- **MessagePullMarshaller** ()
- virtual **~MessagePullMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.479.1 Detailed Description

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2363). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.479.2 Constructor & Destructor Documentation

**6.479.2.1** `activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::MessagePullMarshaller()` [inline]

**6.479.2.2** `virtual activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::~~MessagePullMarshaller()` [inline, virtual]

## 6.479.3 Member Function Documentation

**6.479.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.479.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.479.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.479.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.479.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.479.3.6** virtual void activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.479.3.7** virtual void activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/MessagePullMarshaller.h

## 6.480 activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller Class Reference

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2367).

#include <src/main/activemq/wireformat/openwire/marshal/v4/MessagePullMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller:

### Public Member Functions

- **MessagePullMarshaller** ()
- virtual **~MessagePullMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.480.1 Detailed Description

Marshaling code for Open Wire Format for **MessagePullMarshaller** (p.2367). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.480.2 Constructor & Destructor Documentation

**6.480.2.1** `activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::MessagePullMarshaller()` [inline]

**6.480.2.2** `virtual activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::~~MessagePullMarshaller()` [inline, virtual]

## 6.480.3 Member Function Documentation

**6.480.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.480.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.480.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.480.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.480.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.480.3.6** virtual void activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.480.3.7** virtual void activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/MessagePullMarshaller.h

## 6.481 activemq::transport::mock::MockTransport Class Reference

The **MockTransport** (p. 2371) defines a base level **Transport** (p. 3273) class that is intended to be used in place of an a regular protocol **Transport** (p. 3273) such as TCP.

#include <src/main/activemq/transport/mock/MockTransport.h> Inheritance diagram for activemq::transport::mock::MockTransport:

### Public Member Functions

- **MockTransport** (const **Pointer**< **wireformat::WireFormat** > &wireFormat, const **Pointer**< **ResponseBuilder** > &responseBuilder)
- virtual ~**MockTransport** ()
- void **setResponseBuilder** (const **Pointer**< **ResponseBuilder** > &responseBuilder)  
*Sets the **ResponseBuilder** (p. 2785) that this class uses to create Responses to Commands sent.*
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException)  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException)  
*Sends the given command to the broker and then waits for the response.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException)  
*Sends the given command to the broker and then waits for the response.*
- virtual void **setOutgoingListener** (**TransportListener** \*listener)  
*Sets a Listener that gets notified for every command that would have been sent by this transport to the Broker, this allows a client to verify that its messages are making it to the wire.*
- virtual void **setWireFormat** (const **Pointer**< **wireformat::WireFormat** > &wireFormat **AMQCPP\_UNUSED**)  
*Sets the WireFormat instance to use.*
- **Pointer**< **wireformat::WireFormat** > **getWireFormat** () const  
*Gets the currently set WireFormat.*
- virtual void **setTransportListener** (**TransportListener** \*listener)  
*Sets the observer of asynchronous exceptions from this transport.*
- virtual **TransportListener** \* **getTransportListener** () const  
*Gets the observer of asynchronous exceptions from this transport.*
- virtual void **fireCommand** (const **Pointer**< **Command** > &command)

*Fires a Command back through this transport to its registered CommandListener if there is one.*

- virtual void **fireException** (const exceptions::ActiveMQException &ex)  
*Fires a Exception back through this transport to its registered ExceptionListener if there is one.*
- virtual void **start** () throw ( decaf::io::IOException )  
*Starts the **Transport** (p. 3273), the send methods of a **Transport** (p. 3273) will throw an exception if used before the **Transport** (p. 3273) is started.*
- virtual void **stop** () throw ( decaf::io::IOException )  
*Stops the **Transport** (p. 3273).*
- virtual void **close** () throw ( decaf::io::IOException )  
*Closes this object and deallocates the appropriate resources.*
- virtual **Transport** \* **narrow** (const std::type\_info &typeId)  
*Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.*
- virtual bool **isFaultTolerant** () const  
*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*
- virtual bool **isConnected** () const  
*Is the **Transport** (p. 3273) Connected to its Broker.*
- virtual bool **isClosed** () const  
*Has the **Transport** (p. 3273) been shutdown and no longer usable.*
- virtual std::string **getRemoteAddress** () const
- virtual void **reconnect** (const decaf::net::URI &uri AMQCPP\_UNUSED) throw ( decaf::io::IOException )  
*reconnect to another location*
- bool **isFailOnSendMessage** () const
- void **setFailOnSendMessage** (bool value)
- int **getNumSentMessageBeforeFail** () const
- void **setNumSentMessageBeforeFail** (int value)
- int **getNumSentMessages** () const
- void **setNumSentMessages** (int value)
- bool **isFailOnReceiveMessage** () const
- void **setFailOnReceiveMessage** (bool value)
- int **getNumReceivedMessageBeforeFail** () const
- void **setNumReceivedMessageBeforeFail** (int value)
- int **getNumReceivedMessages** () const
- void **setNumReceivedMessages** (int value)
- bool **isFailOnKeepAliveSends** () const
- void **setFailOnKeepAliveSends** (bool value)
- int **getNumSentKeepAlivesBeforeFail** () const
- void **setNumSentKeepAlivesBeforeFail** (int value)
- int **getNumSentKeepAlives** () const



- void **setNumSentKeepAlives** (int value)
- bool **isFailOnStart** () const
- void **setFailOnStart** (bool value)
- bool **isFailOnStop** () const
- void **setFailOnStop** (bool value)
- bool **isFailOnClose** () const
- void **setFailOnClose** (bool value)

## Static Public Member Functions

- static **MockTransport** \* **getInstance** ()

### 6.481.1 Detailed Description

The **MockTransport** (p. 2371) defines a base level **Transport** (p. 3273) class that is intended to be used in place of an a regular protocol **Transport** (p. 3273) such as TCP. This **Transport** (p. 3273) assumes that it is the base **Transport** (p. 3273) in the Transports stack, and destroys any **Transports** that are passed to it in its constructor.

This **Transport** (p. 3273) defines an Interface **ResponseBuilder** (p. 2785) which must be implemented by any protocol for which the **Transport** (p. 3273) is used to Emulate. The **Transport** (p. 3273) hands off all outbound commands to the **ResponseBuilder** (p. 2785) for processing, it is up to the builder to create appropriate responses and schedule any asynchronous messages that might result from a message sent to the Broker.

### 6.481.2 Constructor & Destructor Documentation

**6.481.2.1** **activemq::transport::mock::MockTransport::MockTransport** (const **Pointer**< **wireformat::WireFormat** > & *wireFormat*, const **Pointer**< **ResponseBuilder** > & *responseBuilder*)

**6.481.2.2** **virtual activemq::transport::mock::MockTransport::~MockTransport** ()  
[inline, virtual]

### 6.481.3 Member Function Documentation

**6.481.3.1** **virtual void activemq::transport::mock::MockTransport::close** () **throw** (**decaf::io::IOException** ) [virtual]

Closes this object and deallocates the appropriate resources. The object is generally no longer usable after calling close.

#### Exceptions:

**IOException** if an error occurs while closing.

Implements **decaf::io::Closeable** (p. 1019).

**6.481.3.2** `virtual void activemq::transport::mock::MockTransport::fireCommand  
(const Pointer< Command > & command) [inline, virtual]`

Fires a Command back through this transport to its registered CommandListener if there is one.

**Parameters:**

*command* - Command to send to the Listener.

**6.481.3.3** `virtual void activemq::transport::mock::MockTransport::fireException  
(const exceptions::ActiveMQException & ex) [inline, virtual]`

Fires a Exception back through this transport to its registered ExceptionListener if there is one.

**Parameters:**

*ex* The Exception that will be passed on the the **Transport** (p. 3273) listener.

**6.481.3.4** `static MockTransport* ac-  
tivemq::transport::mock::MockTransport::getInstance ()  
[inline, static]`

**6.481.3.5** `int ac-  
tivemq::transport::mock::MockTransport::getNumReceivedMessageBeforeFail  
() const [inline]`

**6.481.3.6** `int ac-  
tivemq::transport::mock::MockTransport::getNumReceivedMessages ()  
const [inline]`

**6.481.3.7** `int activemq::transport::mock::MockTransport::getNumSentKeepAlives  
() const [inline]`

**6.481.3.8** `int ac-  
tivemq::transport::mock::MockTransport::getNumSentKeepAlivesBeforeFail  
() const [inline]`

**6.481.3.9** `int ac-  
tivemq::transport::mock::MockTransport::getNumSentMessageBeforeFail  
() const [inline]`

**6.481.3.10** `int activemq::transport::mock::MockTransport::getNumSentMessages ()  
const [inline]`

**6.481.3.11** `virtual std::string ac-  
tivemq::transport::mock::MockTransport::getRemoteAddress () const  
[inline, virtual]`

**Returns:**

the remote address for this connection

Implements **activemq::transport::Transport** (p. 3274).

**6.481.3.12** `virtual TransportListener* activemq::transport::mock::MockTransport::getTransportListener () const [inline, virtual]`

Gets the observer of asynchronous exceptions from this transport.

**Returns:**

The listener of transport events.

Implements **activemq::transport::Transport** (p. 3274).

**6.481.3.13** `Pointer<wireformat::WireFormat> activemq::transport::mock::MockTransport::getWireFormat () const [inline]`

Gets the currently set WireFormat.

**Returns:**

the current WireFormat object.

**6.481.3.14** `virtual bool activemq::transport::mock::MockTransport::isClosed () const [inline, virtual]`

Has the **Transport** (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the **Transport** (p. 3273)

Implements **activemq::transport::Transport** (p. 3275).

**6.481.3.15** `virtual bool activemq::transport::mock::MockTransport::isConnected () const [inline, virtual]`

Is the **Transport** (p. 3273) Connected to its Broker.

**Returns:**

true if a connection has been made.

Implements **activemq::transport::Transport** (p. 3275).

- 6.481.3.16 `bool activemq::transport::mock::MockTransport::isFailOnClose () const` [inline]
- 6.481.3.17 `bool activemq::transport::mock::MockTransport::isFailOnKeepAliveSends () const` [inline]
- 6.481.3.18 `bool activemq::transport::mock::MockTransport::isFailOnReceiveMessage () const` [inline]
- 6.481.3.19 `bool activemq::transport::mock::MockTransport::isFailOnSendMessage () const` [inline]
- 6.481.3.20 `bool activemq::transport::mock::MockTransport::isFailOnStart () const` [inline]
- 6.481.3.21 `bool activemq::transport::mock::MockTransport::isFailOnStop () const` [inline]
- 6.481.3.22 `virtual bool activemq::transport::mock::MockTransport::isFaultTolerant () const` [inline, virtual]

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

**Returns:**

true if the **Transport** (p. 3273) is fault tolerant.

Implements **activemq::transport::Transport** (p. 3275).

- 6.481.3.23 `virtual Transport* activemq::transport::mock::MockTransport::narrow (const std::type_info & typeId)` [inline, virtual]

Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.

**Parameters:**

*typeId* - The type\_info of the Object we are searching for.

**Returns:**

the requested Object. or NULL if its not in this chain.

Implements **activemq::transport::Transport** (p. 3275).

- 6.481.3.24 `virtual void activemq::transport::mock::MockTransport::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException)` [virtual]

Sends a one-way command. Does not wait for any response from the broker.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3276).

**6.481.3.25** `virtual void activemq::transport::mock::MockTransport::reconnect  
(const decaf::net::URI &uri AMQCPP_UNUSED) throw (  
decaf::io::IOException ) [inline, virtual]`

reconnect to another location

**Parameters:**

*uri*

**Exceptions:**

*IOException* on failure of if not supported

**6.481.3.26** `virtual Pointer<Response> ac-  
tivemq::transport::mock::MockTransport::request  
(const Pointer< Command > & command, un-  
signed int timeout) throw ( decaf::io::IOException,  
decaf::lang::exceptions::UnsupportedOperationException) [virtual]`

Sends the given command to the broker and then waits for the response.

**Parameters:**

*command* - The command to be sent.

*timeout* - The time to wait for this response.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3276).

**6.481.3.27** `virtual Pointer<Response> ac-  
tivemq::transport::mock::MockTransport::request (const  
Pointer< Command > & command) throw ( decaf::io::IOException,  
decaf::lang::exceptions::UnsupportedOperationException) [virtual]`

Sends the given command to the broker and then waits for the response.

**Parameters:**

*command* the command to be sent.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3277).

- 6.481.3.28 void activemq::transport::mock::MockTransport::setFailOnClose (bool *value*) [inline]
- 6.481.3.29 void activemq::transport::mock::MockTransport::setFailOnKeepAliveSends (bool *value*) [inline]
- 6.481.3.30 void activemq::transport::mock::MockTransport::setFailOnReceiveMessage (bool *value*) [inline]
- 6.481.3.31 void activemq::transport::mock::MockTransport::setFailOnSendMessage (bool *value*) [inline]
- 6.481.3.32 void activemq::transport::mock::MockTransport::setFailOnStart (bool *value*) [inline]
- 6.481.3.33 void activemq::transport::mock::MockTransport::setFailOnStop (bool *value*) [inline]
- 6.481.3.34 void activemq::transport::mock::MockTransport::setNumReceivedMessageBeforeFail (int *value*) [inline]
- 6.481.3.35 void activemq::transport::mock::MockTransport::setNumReceivedMessages (int *value*) [inline]
- 6.481.3.36 void activemq::transport::mock::MockTransport::setNumSentKeepAlives (int *value*) [inline]
- 6.481.3.37 void activemq::transport::mock::MockTransport::setNumSentKeepAlivesBeforeFail (int *value*) [inline]
- 6.481.3.38 void activemq::transport::mock::MockTransport::setNumSentMessageBeforeFail (int *value*) [inline]
- 6.481.3.39 void activemq::transport::mock::MockTransport::setNumSentMessages (int *value*) [inline]
- 6.481.3.40 virtual void activemq::transport::mock::MockTransport::setOutgoingListener (TransportListener \* *listener*) [inline, virtual]

Sets a Listener that gets notified for every command that would have been sent by this transport to the Broker, this allows a client to verify that its messages are making it to the wire.

**Parameters:**

*listener* - The CommandListener to notify for each message

**6.481.3.41** `void activemq::transport::mock::MockTransport::setResponseBuilder  
(const Pointer< ResponseBuilder > & responseBuilder) [inline]`

Sets the **ResponseBuilder** (p. 2785) that this class uses to create Responses to Commands sent. These are either real Response Objects, or Commands that would have been sent Asynchronously be the Broker.

**Parameters:**

*responseBuilder* - The **ResponseBuilder** (p. 2785) to use from now on.

**6.481.3.42** `virtual void activemq::transport::mock::MockTransport::setTransportListener  
(TransportListener * listener) [inline, virtual]`

Sets the observer of asynchronous exceptions from this transport.

**Parameters:**

*listener* the listener of transport events.

Implements **activemq::transport::Transport** (p. 3277).

**6.481.3.43** `virtual void activemq::transport::mock::MockTransport::setWireFormat  
(const Pointer< wireformat::WireFormat > &wireFormat  
AMQCPP_UNUSED) [inline, virtual]`

Sets the WireFormat instance to use.

**Parameters:**

*wireFormat* WireFormat the object used to encode / decode commands.

**6.481.3.44** `virtual void activemq::transport::mock::MockTransport::start () throw (  
decaf::io::IOException ) [virtual]`

Starts the **Transport** (p. 3273), the send methods of a **Transport** (p. 3273) will throw an exception if used before the **Transport** (p. 3273) is started.

**Exceptions:**

*IOException* if and error occurs while starting the **Transport** (p. 3273).

Implements **activemq::transport::Transport** (p. 3278).

**6.481.3.45** `virtual void activemq::transport::mock::MockTransport::stop () throw (  
decaf::io::IOException ) [virtual]`

Stops the **Transport** (p. 3273).

**Exceptions:**

*IOException* if an error occurs while stopping the transport.



Implements **activemq::transport::Transport** (p. 3278).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/mock/MockTransport.h`

## 6.482 activemq::transport::mock::MockTransportFactory Class Reference

Manufactures MockTransports, which are objects that read from input streams and write to output streams.

#include <src/main/activemq/transport/mock/MockTransportFactory.h> Inheritance diagram for activemq::transport::mock::MockTransportFactory:

### Public Member Functions

- virtual `~MockTransportFactory()`
- virtual `Pointer< Transport > create` (const `decaf::net::URI` &location) throw ( exceptions::ActiveMQException )

*Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.*

- virtual `Pointer< Transport > createComposite` (const `decaf::net::URI` &location) throw ( exceptions::ActiveMQException )

*Creates a slimmed down **Transport** (p. 3273) instance which can be used in composite transport instances.*

### Protected Member Functions

- virtual `Pointer< Transport > doCreateComposite` (const `decaf::net::URI` &location, const `Pointer< wireformat::WireFormat >` &wireFormat, const `decaf::util::Properties` &properties) throw ( exceptions::ActiveMQException )

*Creates a slimmed down **Transport** (p. 3273) instance which can be used in composite transport instances.*

#### 6.482.1 Detailed Description

Manufactures MockTransports, which are objects that read from input streams and write to output streams.

## 6.482.2 Constructor & Destructor Documentation

**6.482.2.1** virtual  
activemq::transport::mock::MockTransportFactory::~MockTransportFactory  
( ) [inline, virtual]

## 6.482.3 Member Function Documentation

**6.482.3.1** virtual Pointer<Transport> ac-  
tivemq::transport::mock::MockTransportFactory::create (const  
decaf::net::URI & *location*) throw ( exceptions::ActiveMQException )  
[virtual]

Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements **activemq::transport::TransportFactory** (p. 3279).

**6.482.3.2** virtual Pointer<Transport> ac-  
tivemq::transport::mock::MockTransportFactory::createComposite (const  
decaf::net::URI & *location*) throw ( exceptions::ActiveMQException )  
[virtual]

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements **activemq::transport::TransportFactory** (p. 3280).

**6.482.3.3** virtual Pointer<Transport> ac-  
tivemq::transport::mock::MockTransportFactory::doCreateComposite  
(const decaf::net::URI & *location*, const Pointer<  
wireformat::WireFormat > & *wireFormat*, const decaf::util::Properties  
& *properties*) throw ( exceptions::ActiveMQException ) [protected,  
virtual]

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.

**Parameters:**

*location* - URI location to connect to.

*wireFormat* - the assigned WireFormat for the new **Transport** (p. 3273).

*properties* - Properties to apply to the transport.

**Returns:**

Pointer to a new **Transport** (p. 3273) instance.

**Exceptions:**

*ActiveMQException* if an error occurs

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/mock/MockTransportFactory.h`

## 6.483 decaf::util::concurrent::Mutex Class Reference

**Mutex** (p.2385) object that offers recursive support on all platforms as well as providing the ability to use the standard wait / notify pattern used in languages like Java.

#include <src/main/decaf/util/concurrent/Mutex.h> Inheritance diagram for decaf::util::concurrent::Mutex:

### Public Member Functions

- **Mutex** ()
- virtual ~**Mutex** ()
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to **Lock** (p.2023) the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.483.1 Detailed Description

**Mutex** (p.2385) object that offers recursive support on all platforms as well as providing the ability to use the standard wait / notify pattern used in languages like Java.

**Since:**

1.0

### 6.483.2 Constructor & Destructor Documentation

**6.483.2.1** `decaf::util::concurrent::Mutex::Mutex ()`

**6.483.2.2** `virtual decaf::util::concurrent::Mutex::~~Mutex () [virtual]`

### 6.483.3 Member Function Documentation

**6.483.3.1** `virtual void decaf::util::concurrent::Mutex::lock () throw ( decaf::lang::exceptions::RuntimeException ) [virtual]`

Locks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p.3123).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::lock()`, `decaf::util::StlMap< std::string, cms::Topic * >::lock()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::lock()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::lock()`.

**6.483.3.2** `virtual void decaf::util::concurrent::Mutex::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the **Synchronizable** (p.3122) Object.

***RuntimeException*** if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p.3124).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::notify()`, `decaf::util::StlMap< std::string, cms::Topic * >::notify()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::notify()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::notify()`.

**6.483.3.3** `virtual void decaf::util::concurrent::Mutex::notifyAll  
() throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

***RuntimeException*** if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::notifyAll()`, `decaf::util::StlMap< std::string, cms::Topic * >::notifyAll()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::notifyAll()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::notifyAll()`.

**6.483.3.4** `virtual bool decaf::util::concurrent::Mutex::tryLock () throw (  
decaf::lang::exceptions::RuntimeException ) [virtual]`

Attempts to **Lock** (p.2023) the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::tryLock()`, `decaf::util::StlMap< std::string, cms::Topic * >::tryLock()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::tryLock()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::tryLock()`.

**6.483.3.5** `virtual void decaf::util::concurrent::Mutex::unlock () throw (  
decaf::lang::exceptions::RuntimeException ) [virtual]`

Unlocks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::unlock()`, `decaf::util::StlMap< std::string, cms::Topic * >::unlock()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::unlock()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::unlock()`.

**6.483.3.6** `virtual void decaf::util::concurrent::Mutex::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [virtual]`

Waits on a signal from this object, which is generated by a call to `Notify`. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

#### Parameters:

*millisecs* the time in milliseconds to wait, or `WAIT_INFINITE`

*nanos* additional time in nanoseconds with a range of 0-999999

#### Exceptions:

***IllegalArgumentException*** if an error occurs or the nanos argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.483.3.7** `virtual void decaf::util::concurrent::Mutex::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [virtual]`

Waits on a signal from this object, which is generated by a call to `Notify`. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*millisecs* the time in milliseconds to wait, or `WAIT_INFINITE`

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.



***IllegalMonitorStateException*** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.483.3.8** **virtual void decaf::util::concurrent::Mutex::wait ()**  
**throw ( decaf::lang::exceptions::RuntimeException,**  
**decaf::lang::exceptions::IllegalMonitorStateException,**  
**decaf::lang::exceptions::InterruptedException ) [virtual]**

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::wait()`, `decaf::util::StlMap< std::string, cms::Topic * >::wait()`, `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR >::wait()`, and `decaf::util::AbstractCollection< Pointer< BackupTransport > >::wait()`.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Mutex.h`

## 6.484 decaf::util::concurrent::MutexHandle Class Reference

```
#include <src/main/decaf/internal/util/concurrent/unix/MutexHandle.h>
```

### Public Member Functions

- **MutexHandle** ()
- **~MutexHandle** ()
- **MutexHandle** ()
- **~MutexHandle** ()

### Data Fields

- pthread\_mutex\_t **mutex**
- volatile long long **lock\_owner**
- volatile long long **lock\_count**
- CRITICAL\_SECTION **mutex**

### 6.484.1 Constructor & Destructor Documentation

**6.484.1.1** decaf::util::concurrent::MutexHandle::MutexHandle () [inline]

**6.484.1.2** decaf::util::concurrent::MutexHandle::~~MutexHandle () [inline]

**6.484.1.3** decaf::util::concurrent::MutexHandle::MutexHandle () [inline]

**6.484.1.4** decaf::util::concurrent::MutexHandle::~~MutexHandle () [inline]

### 6.484.2 Field Documentation

**6.484.2.1** volatile long long decaf::util::concurrent::MutexHandle::lock\_count

**6.484.2.2** volatile long long decaf::util::concurrent::MutexHandle::lock\_owner

**6.484.2.3** CRITICAL\_SECTION decaf::util::concurrent::MutexHandle::mutex

**6.484.2.4** pthread\_mutex\_t decaf::util::concurrent::MutexHandle::mutex

The documentation for this class was generated from the following files:

- src/main/decaf/internal/util/concurrent/unix/**MutexHandle.h**
- src/main/decaf/internal/util/concurrent/windows/**MutexHandle.h**

## 6.485 decaf::internal::util::concurrent::MutexImpl Class Reference

```
#include <src/main/decaf/internal/util/concurrent/MutexImpl.h>
```

### Static Public Member Functions

- static **decaf::util::concurrent::MutexHandle \* create** ()  
*Creates a Reentrant Mutex and returns the handle, throws a Runtime Exception if the Mutex cannot be created for some reason.*
- static void **destroy** (decaf::util::concurrent::MutexHandle \*handle)  
*Destroy a previously create Mutex instance.*
- static void **lock** (decaf::util::concurrent::MutexHandle \*handle)  
*Locks the Mutex.*
- static bool **trylock** (decaf::util::concurrent::MutexHandle \*handle)  
*Tries to lock the Mutex.*
- static void **unlock** (decaf::util::concurrent::MutexHandle \*handle)  
*Unlocks the Mutex allowing other Thread to then acquire the Lock on it.*

### 6.485.1 Member Function Documentation

#### 6.485.1.1 static decaf::util::concurrent::MutexHandle\* decaf::internal::util::concurrent::MutexImpl::create () [static]

Creates a Reentrant Mutex and returns the handle, throws a Runtime Exception if the Mutex cannot be created for some reason.

#### Returns:

handle to a newly created Mutex.

#### 6.485.1.2 static void decaf::internal::util::concurrent::MutexImpl::destroy (decaf::util::concurrent::MutexHandle \* handle) [static]

Destroy a previously create Mutex instance.

#### Parameters:

*mutex* The Mutex instance to be destroyed.

**6.485.1.3**    `static void decaf::internal::util::concurrent::MutexImpl::lock`  
                  `(decaf::util::concurrent::MutexHandle * handle)`    `[static]`

Locks the Mutex. If the Mutex is already locked by another thread this method blocks until the Mutex becomes unlocked and this thread acquires the lock.

**Parameters:**

*handle* the handle to the Mutex to Lock.

**6.485.1.4**    `static bool decaf::internal::util::concurrent::MutexImpl::trylock`  
                  `(decaf::util::concurrent::MutexHandle * handle)`    `[static]`

Tries to lock the Mutex. If the Mutex is unlocked this Thread acquires the lock on the Mutex and this method returns true, if the Mutex is already locked then the lock is not acquired and this method returns false.

**Parameters:**

*handle* the handle to the Mutex to attempt to Lock.

**Returns:**

true if the lock was acquired false otherwise.

**6.485.1.5**    `static void decaf::internal::util::concurrent::MutexImpl::unlock`  
                  `(decaf::util::concurrent::MutexHandle * handle)`    `[static]`

Unlocks the Mutex allowing other Thread to then acquire the Lock on it.

**Parameters:**

*handle* the handle to the Mutex to attempt to Lock.

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/util/concurrent/MutexImpl.h`

## 6.486 activemq::commands::NetworkBridgeFilter Class Reference

#include <src/main/activemq/commands/NetworkBridgeFilter.h> Inheritance diagram for activemq::commands::NetworkBridgeFilter:

### Public Member Functions

- **NetworkBridgeFilter** ()
- virtual **~NetworkBridgeFilter** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **NetworkBridgeFilter \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getNetworkTTL** () const
- virtual void **setNetworkTTL** (int networkTTL)
- virtual const **Pointer**< **BrokerId** > & **getNetworkBrokerId** () const
- virtual **Pointer**< **BrokerId** > & **getNetworkBrokerId** ()
- virtual void **setNetworkBrokerId** (const **Pointer**< **BrokerId** > &networkBrokerId)

### Static Public Attributes

- static const unsigned char **ID\_NETWORKBRIDGEFILTER** = 91

### Protected Member Functions

- **NetworkBridgeFilter** (const **NetworkBridgeFilter** &)
- **NetworkBridgeFilter** & **operator=** (const **NetworkBridgeFilter** &)

### Protected Attributes

- int **networkTTL**
- **Pointer**< **BrokerId** > **networkBrokerId**

## 6.486.1 Constructor & Destructor Documentation

**6.486.1.1** `activemq::commands::NetworkBridgeFilter::NetworkBridgeFilter (const NetworkBridgeFilter &) [inline, protected]`

**6.486.1.2** `activemq::commands::NetworkBridgeFilter::NetworkBridgeFilter ()`

**6.486.1.3** `virtual  
activemq::commands::NetworkBridgeFilter::~~NetworkBridgeFilter ()  
[virtual]`

## 6.486.2 Member Function Documentation

**6.486.2.1** `virtual NetworkBridgeFilter* ac-  
tivemq::commands::NetworkBridgeFilter::cloneDataStructure () const  
[virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.486.2.2** `virtual void ac-  
tivemq::commands::NetworkBridgeFilter::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

**6.486.2.3** `virtual bool activemq::commands::NetworkBridgeFilter::equals (const  
DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

**6.486.2.4** virtual unsigned char activemq::commands::NetworkBridgeFilter::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.486.2.5** virtual Pointer<BrokerId>& activemq::commands::NetworkBridgeFilter::getNetworkBrokerId () [virtual]

**6.486.2.6** virtual const Pointer<BrokerId>& activemq::commands::NetworkBridgeFilter::getNetworkBrokerId () const [virtual]

**6.486.2.7** virtual int activemq::commands::NetworkBridgeFilter::getNetworkTTL () const [virtual]

**6.486.2.8** NetworkBridgeFilter& activemq::commands::NetworkBridgeFilter::operator= (const NetworkBridgeFilter &) [inline, protected]

**6.486.2.9** virtual void activemq::commands::NetworkBridgeFilter::setNetworkBrokerId (const Pointer< BrokerId > & *networkBrokerId*) [virtual]

**6.486.2.10** virtual void activemq::commands::NetworkBridgeFilter::setNetworkTTL (int *networkTTL*) [virtual]

**6.486.2.11** virtual std::string activemq::commands::NetworkBridgeFilter::toString () const [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSet** (p. 718).

### 6.486.3 Field Documentation

**6.486.3.1** `const unsigned char activemq::commands::NetworkBridgeFilter::ID_NETWORKBRIDGEFILTER = 91` [static]

**6.486.3.2** `Pointer<BrokerId> activemq::commands::NetworkBridgeFilter::networkBrokerId` [protected]

**6.486.3.3** `int activemq::commands::NetworkBridgeFilter::networkTTL` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/NetworkBridgeFilter.h`



## 6.487 activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller Class Reference

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2397).

#include <src/main/activemq/wireformat/openwire/marshal/v2/NetworkBridgeFilterMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller:

### Public Member Functions

- **NetworkBridgeFilterMarshaller** ()
- virtual **~NetworkBridgeFilterMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.487.1 Detailed Description

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2397).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.487.2 Constructor & Destructor Documentation

**6.487.2.1** `activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::NetworkBridgeFilterMarshaller()` [inline]

**6.487.2.2** `virtual activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::~~NetworkBridgeFilterMarshaller()` [inline, virtual]

## 6.487.3 Member Function Documentation

**6.487.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.487.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.487.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.487.3.4** virtual void **activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.487.3.5** virtual int **activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::tightMarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.487.3.6** virtual void activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.487.3.7** virtual void activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/NetworkBridgeFilterMarshaller.h

## 6.488 activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller Class Reference

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2401).

#include <src/main/activemq/wireformat/openwire/marshal/v3/NetworkBridgeFilterMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller:

### Public Member Functions

- **NetworkBridgeFilterMarshaller** ()
- virtual **~NetworkBridgeFilterMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.488.1 Detailed Description

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2401).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.488.2 Constructor & Destructor Documentation

**6.488.2.1** `activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::NetworkBridgeFilterMarshaller()` [inline]

**6.488.2.2** `virtual activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::~~NetworkBridgeFilterMarshaller()` [inline, virtual]

## 6.488.3 Member Function Documentation

**6.488.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.488.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.488.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.488.3.4** virtual void **activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.488.3.5** virtual int **activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::tightMarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.488.3.6** virtual void activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.488.3.7** virtual void activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/NetworkBridgeFilterMarshaller.h



## 6.489 activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller Class Reference

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2405).

#include <src/main/activemq/wireformat/openwire/marshal/v5/NetworkBridgeFilterMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller:

### Public Member Functions

- **NetworkBridgeFilterMarshaller** ()
- virtual **~NetworkBridgeFilterMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.489.1 Detailed Description

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2405).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.489.2 Constructor & Destructor Documentation

**6.489.2.1** `activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::NetworkBridgeFilterMarshaller()` [inline]

**6.489.2.2** `virtual activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::~~NetworkBridgeFilterMarshaller()` [inline, virtual]

## 6.489.3 Member Function Documentation

**6.489.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.489.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.489.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.489.3.4** virtual void **activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::looseUnmarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.489.3.5** virtual int **activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::tightMarshal** (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.489.3.6** virtual void activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.489.3.7** virtual void activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/NetworkBridgeFilterMarshaller.h

## 6.490 activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller Class Reference

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2409).

#include <src/main/activemq/wireformat/openwire/marshal/v1/NetworkBridgeFilterMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller:

### Public Member Functions

- **NetworkBridgeFilterMarshaller** ()
- virtual **~NetworkBridgeFilterMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.490.1 Detailed Description

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2409).  
 NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.490.2 Constructor & Destructor Documentation

**6.490.2.1** `activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::NetworkBridgeFilterMarshaller()` [inline]

**6.490.2.2** `virtual activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::~~NetworkBridgeFilterMarshaller()` [inline, virtual]

## 6.490.3 Member Function Documentation

**6.490.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.490.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.490.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.490.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.490.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.490.3.6** virtual void activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.490.3.7** virtual void activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/NetworkBridgeFilterMarshaller.h



## 6.491 activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller Class Reference

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2413).

#include <src/main/activemq/wireformat/openwire/marshal/v4/NetworkBridgeFilterMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller:

### Public Member Functions

- **NetworkBridgeFilterMarshaller** ()
- virtual **~NetworkBridgeFilterMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.491.1 Detailed Description

Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2413).  
NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.491.2 Constructor & Destructor Documentation

**6.491.2.1** `activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::NetworkBridgeFilterMarshaller()` [inline]

**6.491.2.2** `virtual activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::~~NetworkBridgeFilterMarshaller()` [inline, virtual]

## 6.491.3 Member Function Documentation

**6.491.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.491.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.491.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.491.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::looseUnmarshal`  
(`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw (`decaf::io::IOException`) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.491.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::tightMarshal`  
(`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw (`decaf::io::IOException`) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.491.3.6** virtual void activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.491.3.7** virtual void activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/NetworkBridgeFilterMarshaller.h

## 6.492 decaf::net::NoRouteToHostException Class Reference

#include <src/main/decaf/net/NoRouteToHostException.h> Inheritance diagram for decaf::net::NoRouteToHostException:

### Public Member Functions

- **NoRouteToHostException** () throw ()  
*Default Constructor.*
- **NoRouteToHostException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **NoRouteToHostException** (const **NoRouteToHostException** &ex) throw ()  
*Copy Constructor.*
- **NoRouteToHostException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NoRouteToHostException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NoRouteToHostException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NoRouteToHostException** \* **clone** () const  
*Clones this exception.*
- virtual ~**NoRouteToHostException** () throw ()

### 6.492.1 Constructor & Destructor Documentation

**6.492.1.1 decaf::net::NoRouteToHostException::NoRouteToHostException () throw () [inline]**

Default Constructor.

**6.492.1.2 decaf::net::NoRouteToHostException::NoRouteToHostException (const Exception & ex) throw () [inline]**

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.492.1.3** `decaf::net::NoRouteToHostException::NoRouteToHostException (const NoRouteToHostException & ex) throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.492.1.4** `decaf::net::NoRouteToHostException::NoRouteToHostException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.492.1.5** `decaf::net::NoRouteToHostException::NoRouteToHostException (const std::exception * cause) throw () [inline]`

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.492.1.6** `decaf::net::NoRouteToHostException::NoRouteToHostException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.492.1.7**    **virtual**  
**decaf::net::NoRouteToHostException::~~NoRouteToHostException ()**  
**throw ()**    [inline, virtual]

## 6.492.2 Member Function Documentation

**6.492.2.1**    **virtual NoRouteToHostException\* de-**  
**caf::net::NoRouteToHostException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::net::SocketException** (p. 2973).

The documentation for this class was generated from the following file:

- src/main/decaf/net/**NoRouteToHostException.h**

## 6.493 decaf::security::NoSuchAlgorithmException Class Reference

#include <src/main/decaf/security/NoSuchAlgorithmException.h> Inheritance diagram for decaf::security::NoSuchAlgorithmException:

### Public Member Functions

- **NoSuchAlgorithmException** () throw ()  
*Default Constructor.*
- **NoSuchAlgorithmException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **NoSuchAlgorithmException** (const **NoSuchAlgorithmException** &ex) throw ()  
*Copy Constructor.*
- **NoSuchAlgorithmException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NoSuchAlgorithmException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NoSuchAlgorithmException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NoSuchAlgorithmException** \* **clone** () const  
*Clones this exception.*
- virtual ~**NoSuchAlgorithmException** () throw ()

### 6.493.1 Constructor & Destructor Documentation

#### 6.493.1.1 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException () throw () [inline]

Default Constructor.

#### 6.493.1.2 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception



**6.493.1.3 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException**  
(const NoSuchAlgorithmException & *ex*) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.493.1.4 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException**  
(const char \* *file*, const int *lineNumber*, const std::exception \* *cause*,  
const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.493.1.5 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException**  
(const std::exception \* *cause*) throw () [inline]

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.493.1.6 decaf::security::NoSuchAlgorithmException::NoSuchAlgorithmException**  
(const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.493.1.7**    **virtual**  
**decaf::security::NoSuchAlgorithmException::~~NoSuchAlgorithmException**  
**() throw ()**    [inline, virtual]

## **6.493.2**    **Member Function Documentation**

**6.493.2.1**    **virtual** **NoSuchAlgorithmException\*** **de-**  
**caf::security::NoSuchAlgorithmException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

A deep copy of this exception.

Reimplemented from **decaf::security::GeneralSecurityException** (p. 1708).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/NoSuchAlgorithmException.h`

## 6.494 decaf::lang::exceptions::NoSuchElementException Class Reference

#include <src/main/decaf/lang/exceptions/NoSuchElementException.h> Inheritance diagram for decaf::lang::exceptions::NoSuchElementException:

### Public Member Functions

- **NoSuchElementException** () throw ()  
*Default Constructor.*
- **NoSuchElementException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **NoSuchElementException** (const **NoSuchElementException** &ex) throw ()  
*Copy Constructor.*
- **NoSuchElementException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NoSuchElementException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NoSuchElementException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NoSuchElementException** \* clone () const  
*Clones this exception.*
- virtual ~**NoSuchElementException** () throw ()

### 6.494.1 Constructor & Destructor Documentation

#### 6.494.1.1 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException () throw () [inline]

Default Constructor.

#### 6.494.1.2 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.494.1.3 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException (const NoSuchElementException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.494.1.4 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.494.1.5 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.494.1.6 decaf::lang::exceptions::NoSuchElementException::NoSuchElementException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.494.1.7**    **virtual**  
          **decaf::lang::exceptions::NoSuchElementException::~~NoSuchElementException**  
          **() throw ()**    [inline, virtual]

## 6.494.2 Member Function Documentation

**6.494.2.1**    **virtual** **NoSuchElementException\*** **de-**  
          **caf::lang::exceptions::NoSuchElementException::clone ()**  
          **const**    [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/NoSuchElementException.h`

## 6.495 decaf::security::NoSuchProviderException Class Reference

#include <src/main/decaf/security/NoSuchProviderException.h> Inheritance diagram for decaf::security::NoSuchProviderException:

### Public Member Functions

- **NoSuchProviderException** () throw ()  
*Default Constructor.*
- **NoSuchProviderException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **NoSuchProviderException** (const **NoSuchProviderException** &ex) throw ()  
*Copy Constructor.*
- **NoSuchProviderException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NoSuchProviderException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NoSuchProviderException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NoSuchProviderException** \* clone () const  
*Clones this exception.*
- virtual ~**NoSuchProviderException** () throw ()

### 6.495.1 Constructor & Destructor Documentation

#### 6.495.1.1 decaf::security::NoSuchProviderException::NoSuchProviderException () throw () [inline]

Default Constructor.

#### 6.495.1.2 decaf::security::NoSuchProviderException::NoSuchProviderException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.495.1.3 decaf::security::NoSuchProviderException::NoSuchProviderException**  
(const NoSuchProviderException & *ex*) throw () [inline]

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.495.1.4 decaf::security::NoSuchProviderException::NoSuchProviderException**  
(const char \* *file*, const int *lineNumber*, const std::exception \* *cause*,  
const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.495.1.5 decaf::security::NoSuchProviderException::NoSuchProviderException**  
(const std::exception \* *cause*) throw () [inline]

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.495.1.6 decaf::security::NoSuchProviderException::NoSuchProviderException**  
(const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()  
[inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.495.1.7**    **virtual**  
**decaf::security::NoSuchProviderException::~~NoSuchProviderException**  
**() throw ()**    [inline, virtual]

## **6.495.2    Member Function Documentation**

**6.495.2.1**    **virtual NoSuchProviderException\* de-**  
**caf::security::NoSuchProviderException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

A deep copy of this exception.

Reimplemented from **decaf::security::GeneralSecurityException** (p. 1708).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/NoSuchProviderException.h`



## 6.496 decaf::lang::exceptions::NullPointerException Class Reference

#include <src/main/decaf/lang/exceptions/NullPointerException.h> Inheritance diagram for decaf::lang::exceptions::NullPointerException:

### Public Member Functions

- **NullPointerException** () throw ()  
*Default Constructor.*
- **NullPointerException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **NullPointerException** (const **NullPointerException** &ex) throw ()  
*Copy Constructor.*
- **NullPointerException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NullPointerException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NullPointerException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NullPointerException** \* **clone** () const  
*Clones this exception.*
- virtual ~**NullPointerException** () throw ()

### 6.496.1 Constructor & Destructor Documentation

#### 6.496.1.1 decaf::lang::exceptions::NullPointerException::NullPointerException () throw () [inline]

Default Constructor.

#### 6.496.1.2 decaf::lang::exceptions::NullPointerException::NullPointerException (const Exception & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.496.1.3 decaf::lang::exceptions::NullPointerException::NullPointerException (const NullPointerException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.496.1.4 decaf::lang::exceptions::NullPointerException::NullPointerException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.496.1.5 decaf::lang::exceptions::NullPointerException::NullPointerException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.496.1.6 decaf::lang::exceptions::NullPointerException::NullPointerException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.496.1.7**    **virtual**  
          **decaf::lang::exceptions::NullPointerException::~~NullPointerException ()**  
          **throw ()**    [inline, virtual]

## 6.496.2 Member Function Documentation

**6.496.2.1**    **virtual NullPointerException\* de-**  
          **caf::lang::exceptions::NullPointerException::clone () const**  
          [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**NullPointerException.h**

## 6.497 decaf::lang::Number Class Reference

The abstract class **Number** (p. 2432) is the superclass of classes **Byte** (p. 840), **Double** (p. 1537), **Float** (p. 1647), **Integer** (p. 1762), **Long** (p. 2057), and **Short** (p. 2906).

#include <src/main/decaf/lang/Number.h> Inheritance diagram for decaf::lang::Number:

### Public Member Functions

- virtual `~Number ()`
- virtual unsigned char `byteValue () const`  
*Answers the byte value which the receiver represents.*
- virtual double `doubleValue () const =0`  
*Answers the double value which the receiver represents.*
- virtual float `floatValue () const =0`  
*Answers the float value which the receiver represents.*
- virtual int `intValue () const =0`  
*Answers the int value which the receiver represents.*
- virtual long long `longValue () const =0`  
*Answers the long value which the receiver represents.*
- virtual short `shortValue () const`  
*Answers the short value which the receiver represents.*

### 6.497.1 Detailed Description

The abstract class **Number** (p. 2432) is the superclass of classes **Byte** (p. 840), **Double** (p. 1537), **Float** (p. 1647), **Integer** (p. 1762), **Long** (p. 2057), and **Short** (p. 2906). Subclasses of **Number** (p. 2432) must provide methods to convert the represented numeric value to byte, double, float, int, long, and short.

### 6.497.2 Constructor & Destructor Documentation

**6.497.2.1** virtual `decaf::lang::Number::~~Number ()` [inline, virtual]

### 6.497.3 Member Function Documentation

**6.497.3.1** virtual unsigned char `decaf::lang::Number::byteValue () const` [inline, virtual]

Answers the byte value which the receiver represents.

**Returns:**

byte the value of the receiver.

Reimplemented in **decaf::lang::Byte** (p. 842), **decaf::lang::Character** (p. 984), **decaf::lang::Double** (p. 1539), **decaf::lang::Float** (p. 1649), **decaf::lang::Integer** (p. 1765), **decaf::lang::Long** (p. 2060), and **decaf::lang::Short** (p. 2908).

**6.497.3.2 virtual double decaf::lang::Number::doubleValue () const [pure virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implemented in **decaf::lang::Byte** (p. 843), **decaf::lang::Character** (p. 985), **decaf::lang::Double** (p. 1541), **decaf::lang::Float** (p. 1650), **decaf::lang::Integer** (p. 1766), **decaf::lang::Long** (p. 2061), **decaf::lang::Short** (p. 2909), and **decaf::util::concurrent::atomic::AtomicInteger** (p. 635).

**6.497.3.3 virtual float decaf::lang::Number::floatValue () const [pure virtual]**

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implemented in **decaf::lang::Byte** (p. 844), **decaf::lang::Character** (p. 985), **decaf::lang::Double** (p. 1542), **decaf::lang::Float** (p. 1652), **decaf::lang::Integer** (p. 1767), **decaf::lang::Long** (p. 2062), **decaf::lang::Short** (p. 2910), and **decaf::util::concurrent::atomic::AtomicInteger** (p. 635).

**6.497.3.4 virtual int decaf::lang::Number::intValue () const [pure virtual]**

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implemented in **decaf::lang::Byte** (p. 844), **decaf::lang::Character** (p. 986), **decaf::lang::Double** (p. 1542), **decaf::lang::Float** (p. 1653), **decaf::lang::Integer** (p. 1767), **decaf::lang::Long** (p. 2062), **decaf::lang::Short** (p. 2910), and **decaf::util::concurrent::atomic::AtomicInteger** (p. 637).

**6.497.3.5 virtual long long decaf::lang::Number::longValue () const [pure virtual]**

Answers the long value which the receiver represents.

**Returns:**

long long the value of the receiver.

Implemented in `decaf::lang::Byte` (p. 844), `decaf::lang::Character` (p. 987), `decaf::lang::Double` (p. 1543), `decaf::lang::Float` (p. 1653), `decaf::lang::Integer` (p. 1768), `decaf::lang::Long` (p. 2063), `decaf::lang::Short` (p. 2910), and `decaf::util::concurrent::atomic::AtomicInteger` (p. 637).

#### 6.497.3.6 virtual short decaf::lang::Number::shortValue () const [inline, virtual]

Answers the short value which the receiver represents.

##### Returns:

short the value of the receiver.

Reimplemented in `decaf::lang::Byte` (p. 846), `decaf::lang::Character` (p. 988), `decaf::lang::Double` (p. 1545), `decaf::lang::Float` (p. 1655), `decaf::lang::Integer` (p. 1772), `decaf::lang::Long` (p. 2067), and `decaf::lang::Short` (p. 2912).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Number.h`

## 6.498 decaf::lang::exceptions::NumberFormatException Class Reference

#include <src/main/decaf/lang/exceptions/NumberFormatException.h> Inheritance diagram for decaf::lang::exceptions::NumberFormatException:

### Public Member Functions

- **NumberFormatException** ()  
*Default Constructor.*
- **NumberFormatException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **NumberFormatException** (const **NumberFormatException** &ex) throw ()  
*Copy Constructor.*
- **NumberFormatException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **NumberFormatException** (const std::exception \*cause) throw ()  
*Constructor.*
- **NumberFormatException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **NumberFormatException** \* clone () const  
*Clones this exception.*
- virtual ~**NumberFormatException** () throw ()

### 6.498.1 Constructor & Destructor Documentation

#### 6.498.1.1 decaf::lang::exceptions::NumberFormatException::NumberFormatException () [inline]

Default Constructor.

Referenced by clone().

#### 6.498.1.2 decaf::lang::exceptions::NumberFormatException::NumberFormatException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.498.1.3** `decaf::lang::exceptions::NumberFormatException::NumberFormatException  
(const NumberFormatException & ex) throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

**6.498.1.4** `decaf::lang::exceptions::NumberFormatException::NumberFormatException  
(const char * file, const int lineNumber, const std::exception * cause,  
const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

References `decaf::lang::Exception::buildMessage()`, and `decaf::lang::Exception::setMark()`.

**6.498.1.5** `decaf::lang::exceptions::NumberFormatException::NumberFormatException  
(const std::exception * cause) throw () [inline]`

Constructor.

**Parameters:**

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.498.1.6** `decaf::lang::exceptions::NumberFormatException::NumberFormatException  
(const char * file, const int lineNumber, const char * msg, ...) throw ()  
[inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.



*msg* The message to report

... list of primitives that are formatted into the message

References decaf::lang::Exception::buildMessage(), and decaf::lang::Exception::setMark().

#### 6.498.1.7 virtual

decaf::lang::exceptions::NumberFormatException::~~NumberFormatException  
( ) throw ( ) [inline, virtual]

### 6.498.2 Member Function Documentation

6.498.2.1 virtual NumberFormatException\* de-  
caf::lang::exceptions::NumberFormatException::clone ( )  
const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

#### Returns:

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

References NumberFormatException().

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**NumberFormatException.h**

## 6.499 cms::ObjectMessage Class Reference

Place holder for interaction with JMS systems that support Java, the C++ client is not responsible for deserializing the contained Object.

`#include <src/main/cms/ObjectMessage.h>`Inheritance diagram for cms::ObjectMessage:

### Public Member Functions

- virtual `~ObjectMessage ()`

#### 6.499.1 Detailed Description

Place holder for interaction with JMS systems that support Java, the C++ client is not responsible for deserializing the contained Object. serialized `ObjectMessage` (p. 2438)s.

Since:

1.0

#### 6.499.2 Constructor & Destructor Documentation

##### 6.499.2.1 virtual cms::ObjectMessage::~ObjectMessage () [inline, virtual]

The documentation for this class was generated from the following file:

- `src/main/cms/ObjectMessage.h`

## 6.500 decaf::security\_provider::unix::openssl::OpenSSLX500Principal Class Reference

The `OpenSSLX500Principal` (p. 2439) wraps around an OpenSSL `X509_NAME` structure.

```
#include <src/main/decaf/security_provider/unix/openssl/OpenSSLX500Principal.h>
```

### Public Member Functions

- **OpenSSLX500Principal** (`X509_NAME *name`)  
*Constructor.*
- virtual **~OpenSSLX500Principal** ()  
*Destructor.*
- virtual `X509_NAME *getX509Name` ()  
*Accessor to the underlying X509 name structure.*
- virtual `bool equals` (`const Principal &another`) `const`  
*Compares two principals to see if they are the same.*
- virtual `std::string getName` () `const`  
*Returns the distinguished name string using the RFC2253 formatting.*
- virtual `void getEncoded` (`std::vector< unsigned char > &output`) `const`  
*Serializes the distinguished name to its ASN.1 DER encoded form.*

### Static Public Member Functions

- static `void getEncoded` (`X509_NAME *name`, `std::vector< unsigned char > &output`)  
*Serializes the given distinguished name to its ASN.1 DER encoded form.*
- static `std::string toString` (`X509_NAME *name`) `const`  
*Converts the given name to a string using the RFC2253 formatting.*

### 6.500.1 Detailed Description

The `OpenSSLX500Principal` (p. 2439) wraps around an OpenSSL `X509_NAME` structure. It does not, however, control the lifetime of the structure.

### 6.500.2 Constructor & Destructor Documentation

#### 6.500.2.1 decaf::security\_provider::unix::openssl::OpenSSLX500Principal::OpenSSLX500Principal (`X509_NAME * name`)

Constructor. Saves the internal X509 name and caches the string representation of the name.

**Parameters:**

*name* The underlying X509 name structure.

```
6.500.2.2  virtual decaf::security_-
            provider::unix::openssl::OpenSSLX500Principal::~~OpenSSLX500Principal
            () [inline, virtual]
```

Destructor. Does nothing.

**6.500.3 Member Function Documentation**

```
6.500.3.1  virtual bool decaf::security_-
            provider::unix::openssl::OpenSSLX500Principal::equals
            (const Principal & another) const [virtual]
```

Compares two principals to see if they are the same.

**Parameters:**

*another* A principal to be tested for equality to this one.

**Returns:**

true if the given principal is equivalent to this one.

```
6.500.3.2  static void decaf::security_-
            provider::unix::openssl::OpenSSLX500Principal::getEncoded
            (X509_NAME * name, std::vector< unsigned char > & output)
            [static]
```

Serializes the given distinguished name to its ASN.1 DER encoded form.

**Parameters:**

*name* the X509 name structure to be encoded.

*output* Receives the distinguished name in ASN.1 DER encoded form.

```
6.500.3.3  virtual void decaf::security_-
            provider::unix::openssl::OpenSSLX500Principal::getEncoded
            (std::vector< unsigned char > & output) const [inline, virtual]
```

Serializes the distinguished name to its ASN.1 DER encoded form.

**Parameters:**

*output* Receives the distinguished name in ASN.1 DER encoded form.

**6.500.3.4** `virtual std::string decaf::security_provider::unix::openssl::OpenSSLX500Principal::getName()  
() const [inline, virtual]`

Returns the distinguished name string using the RFC2253 formatting.

**Returns:**

the RFC2253 formatted distinguished name string.

References toString().

**6.500.3.5** `virtual X509_NAME* decaf::security_provider::unix::openssl::OpenSSLX500Principal::getX509Name()  
[inline, virtual]`

Accessor to the underlying X509 name structure.

**6.500.3.6** `static std::string decaf::security_provider::unix::openssl::OpenSSLX500Principal::toString(  
X509_NAME * name) const [static]`

Converts the given name to a string using the RFC2253 formatting.

**Parameters:**

*name* the X509 name structure to be formatted.

**Returns:**

the RFC2253 formatted name string.

Referenced by getName().

The documentation for this class was generated from the following file:

- src/main/decaf/security\_provider/unix/openssl/OpenSSLX500Principal.h

## 6.501 decaf::security\_provider::unix::openssl::OpenSSLX509Certificate Class Reference

#include <src/main/decaf/security\_provider/unix/openssl/OpenSSLX509Certificate.h> Inheritance diagram for decaf::security\_provider::unix::openssl::OpenSSLX509Certificate:

### Public Member Functions

- virtual **~OpenSSLX509Certificate** ()
- virtual bool **equals** (const Certificate &cert) const =0  
*Compares the encoded form of the two certificates.*
- virtual void **getEncoded** (std::vector< unsigned char > &output) const =0 throw ( CertificateEncodingException )  
*Provides the encoded form of this certificate.*
- virtual std::string **getType** () const =0  
*Returns the type of this certificate.*
- virtual PublicKey \* **getPublicKey** ()=0  
*Gets the public key of this certificate.*
- virtual const PublicKey \* **getPublicKey** () const =0  
*Gets the public key of this certificate.*
- virtual void **verify** (const PublicKey &publicKey) const =0 throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException )  
*Verifies that this certificate was signed with the private key that corresponds to the specified public key.*
- virtual void **verify** (const PublicKey &publicKey, const std::string &sigProvider) const =0 throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException )  
*Verifies that this certificate was signed with the private key that corresponds to the specified public key.*
- virtual std::string **toString** () const =0  
*Returns a string representation of this certificate.*
- virtual void **checkValidity** () const =0 throw ( CertificateExpiredException, CertificateNotYetValidException )
- virtual void **checkValidity** (const decaf::util::Date &date) const =0 throw ( CertificateExpiredException, CertificateNotYetValidException )
- virtual int **getBasicConstraints** () const =0
- virtual void **getIssuerUniqueID** (std::vector< bool > &output) const =0
- virtual const X500Principal \* **getIssuerX500Principal** () const =0
- virtual void **getKeyUsage** (std::vector< unsigned char > &output) const =0

- virtual Date **getNotAfter** () const =0
- virtual Date **getNotBefore** () const =0
- virtual std::string **getSigAlgName** () const =0
- virtual std::string **getSigAlgOID** () const =0
- virtual void **getSigAlgParams** (std::vector< unsigned char > &output) const =0
- virtual void **getSignature** (std::vector< unsigned char > &output) const =0
- virtual void **getSubjectUniqueID** (std::vector< bool > &output) const =0
- virtual const X500Principal \* **getSubjectX500Principal** () const =0
- virtual void **getTBSCertificate** (std::vector< unsigned char > &output) const =0 throw ( CertificateEncodingException )
- virtual int **getVersion** () const =0

### 6.501.1 Constructor & Destructor Documentation

**6.501.1.1** virtual decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::~~OpenSSLX509Certificate () [virtual]

### 6.501.2 Member Function Documentation

**6.501.2.1** virtual void decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::checkValidity (const decaf::util::Date & *date*) const throw (CertificateExpiredException, CertificateNotYetValidException) [pure virtual]

Implements decaf::security::cert::X509Certificate (p. 3407).

**6.501.2.2** virtual void decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::checkValidity () const throw (CertificateExpiredException, CertificateNotYetValidException) [pure virtual]

Implements decaf::security::cert::X509Certificate (p. 3408).

**6.501.2.3** virtual bool decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::equals (const Certificate & *cert*) const [pure virtual]

Compares the encoded form of the two certificates.

#### Parameters:

*cert* The certificate to be tested for equality with this certificate.

#### Returns:

true if the given certificate is equal to this certificate.

**6.501.2.4** `virtual int decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getBasicConstraints ()  
const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.5** `virtual void decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getEncoded  
(std::vector< unsigned char > & output) const throw (  
CertificateEncodingException ) [pure virtual]`

Provides the encoded form of this certificate.

**Parameters:**

*output* Receives the encoded form of this certificate.

**Exceptions:**

*CertificateEncodingException* if an encoding error occurs

Implements `decaf::security::cert::Certificate` (p. 969).

**6.501.2.6** `virtual void decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getIssuerUniqueID  
(std::vector< bool > & output) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.7** `virtual const X500Principal* decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getIssuerX500Principal  
( ) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.8** `virtual void decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getKeyUsage  
(std::vector< unsigned char > & output) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.9** `virtual Date decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getNotAfter ( ) const  
[pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.10** `virtual Date decaf::security_-  
provider::unix::openssl::OpenSSLX509Certificate::getNotBefore ( ) const  
[pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).



**6.501.2.11** `virtual const PublicKey* decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getPublicKey () const  
[pure virtual]`

Gets the public key of this certificate.

**Returns:**

the public key

Implements `decaf::security::cert::Certificate` (p. 969).

**6.501.2.12** `virtual PublicKey* decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getPublicKey ()  
[pure virtual]`

Gets the public key of this certificate.

**Returns:**

the public key

Implements `decaf::security::cert::Certificate` (p. 969).

**6.501.2.13** `virtual std::string decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getSigAlgName ()  
const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3408).

**6.501.2.14** `virtual std::string decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getSigAlgOID ()  
const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.15** `virtual void decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getSigAlgParams  
(std::vector< unsigned char > & output) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.16** `virtual void decaf::security_  
provider::unix::openssl::OpenSSLX509Certificate::getSignature  
(std::vector< unsigned char > & output) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.17** `virtual void decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::getSubjectUniqueID  
(std::vector< bool > & output) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.18** `virtual const X500Principal* decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::getSubjectX500Principal  
( ) const [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.19** `virtual void decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::getTBSCertificate  
(std::vector< unsigned char > & output) const throw (   
CertificateEncodingException ) [pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.20** `virtual std::string decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::getType ( ) const  
[pure virtual]`

Returns the type of this certificate.

**Returns:**

the type of this certificate

Implements `decaf::security::cert::Certificate` (p. 970).

**6.501.2.21** `virtual int decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::getVersion ( ) const  
[pure virtual]`

Implements `decaf::security::cert::X509Certificate` (p. 3409).

**6.501.2.22** `virtual std::string decaf::security_ -  
provider::unix::openssl::OpenSSLX509Certificate::toString ( ) const  
[pure virtual]`

Returns a string representation of this certificate.

**Returns:**

a string representation of this certificate

Implements `decaf::security::cert::Certificate` (p. 970).

**6.501.2.23** virtual void decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::verify (const PublicKey & *publicKey*, const std::string & *sigProvider*) const throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException) [pure virtual]

Verifies that this certificate was signed with the private key that corresponds to the specified public key. Uses the verification engine of the specified provider.

**Parameters:**

*publicKey* The public key used to carry out the validation.

*sigProvider* The name of the signature provider

**Exceptions:**

*NoSuchAlgorithmException* - on unsupported signature algorithms.

*InvalidKeyException* - on incorrect key.

*NoSuchProviderException* - if there's no default provider.

*SignatureException* - on signature errors.

*CertificateException* - on encoding errors.

**6.501.2.24** virtual void decaf::security\_provider::unix::openssl::OpenSSLX509Certificate::verify (const PublicKey & *publicKey*) const throw ( NoSuchAlgorithmException, InvalidKeyException, NoSuchProviderException, SignatureException, CertificateException) [pure virtual]

Verifies that this certificate was signed with the private key that corresponds to the specified public key.

**Parameters:**

*publicKey* The public key used to carry out the validation.

**Exceptions:**

*NoSuchAlgorithmException* - on unsupported signature algorithms.

*InvalidKeyException* - on incorrect key.

*NoSuchProviderException* - if there's no default provider.

*SignatureException* - on signature errors.

*CertificateException* - on encoding errors.

The documentation for this class was generated from the following file:

- src/main/decaf/security\_provider/unix/openssl/OpenSSLX509Certificate.h

## 6.502 activemq::wireformat::openwire::OpenWireFormat Class Reference

#include <src/main/activemq/wireformat/openwire/OpenWireFormat.h> Inheritance diagram for activemq::wireformat::openwire::OpenWireFormat:

### Public Member Functions

- **OpenWireFormat** (const **decaf::util::Properties** &properties)  
*Constructs a new **OpenWireFormat** (p. 2448) object.*
- virtual **~OpenWireFormat** ()
- virtual bool **hasNegotiator** () const  
*Returns true if this **WireFormat** (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.*
- virtual **Pointer< transport::Transport > createNegotiator** (const **Pointer< transport::Transport >** &transport) throw ( **decaf::lang::exceptions::UnsupportedOperationException** )  
*If the Transport Provides a Negotiator this method will create and return a news instance of the Negotiator.*
- void **addMarshaller** (**marshal::DataStreamMarshaller** \*marshaller)  
*Allows an external source to add marshalers to this object for types that may be marshaled or unmarshaled.*
- virtual void **marshal** (const **Pointer< commands::Command >** &command, const **activemq::transport::Transport** \*transport, **decaf::io::DataOutputStream** \*out) throw ( **decaf::io::IOException** )  
*Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.*
- virtual **Pointer< commands::Command > unmarshal** (const **activemq::transport::Transport** \*transport, **decaf::io::DataInputStream** \*in) throw ( **decaf::io::IOException** )  
*Stream based un-marshaling, blocks on reads on the input stream until a complete command has been read and un-marshaled into the correct form.*
- virtual int **tightMarshalNestedObject1** (**commands::DataStructure** \*object, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Utility method for Tight Marshaling the given object to the boolean stream passed.*
- void **tightMarshalNestedObject2** (**commands::DataStructure** \*o, **decaf::io::DataOutputStream** \*ds, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Utility method that will Tight marshal some internally nested object that implements the DataStructure interface.*

- **commands::DataStructure** \* **tightUnmarshalNestedObject** (decaf::io::DataInputStream \*dis, utils::BooleanStream \*bs) throw ( decaf::io::IOException )  
*Utility method used to Unmarshal a Nested DataStructure type object from the given DataInputStream.*
- **commands::DataStructure** \* **looseUnmarshalNestedObject** (decaf::io::DataInputStream \*dis) throw ( decaf::io::IOException )  
*Utility method to unmarshal an DataStructure object from an DataInputStream using the Loose Unmarshaling format.*
- void **looseMarshalNestedObject** (commands::DataStructure \*o, decaf::io::DataOutputStream \*dataOut) throw ( decaf::io::IOException )  
*Utility method to loosely Marshal an object that is derived from the DataStrcutre interface.*
- void **renegotiateWireFormat** (const commands::WireFormatInfo &info) throw ( decaf::lang::exceptions::IllegalStateException )  
*Called to re-negotiate the settings for the WireFormatInfo, these determine how the client and broker communicate.*
- virtual void **setPreferedWireFormatInfo** (const Pointer< commands::WireFormatInfo > &info) throw ( decaf::lang::exceptions::IllegalStateException )  
*Configures this object using the provided WireformatInfo object.*
- virtual const Pointer< commands::WireFormatInfo > & **getPreferedWireFormatInfo** () const  
*Gets the Preferred WireFormatInfo object that this class holds.*
- bool **isStackTraceEnabled** () const  
*Checks if the stackTraceEnabled flag is on.*
- void **setStackTraceEnabled** (bool stackTraceEnabled)  
*Sets if the stackTraceEnabled flag is on.*
- bool **isTcpNoDelayEnabled** () const  
*Checks if the tcpNoDelayEnabled flag is on.*
- void **setTcpNoDelayEnabled** (bool tcpNoDelayEnabled)  
*Sets if the tcpNoDelayEnabled flag is on.*
- int **getVersion** () const  
*Get the current Wireformat Version.*
- void **setVersion** (int version) throw ( decaf::lang::exceptions::IllegalArgumentExpection )  
*Set the current Wireformat Version.*
- virtual bool **inReceive** () const  
*Is there a Message being unmarshaled?*
- bool **isCacheEnabled** () const

*Checks if the cacheEnabled flag is on.*

- void **setCacheEnabled** (bool cacheEnabled)  
*Sets if the cacheEnabled flag is on.*
- int **getCacheSize** () const  
*Returns the currently set Cache size.*
- void **setCacheSize** (int value)  
*Sets the current Cache size.*
- bool **isTightEncodingEnabled** () const  
*Checks if the tightEncodingEnabled flag is on.*
- void **setTightEncodingEnabled** (bool tightEncodingEnabled)  
*Sets if the tightEncodingEnabled flag is on.*
- bool **isSizePrefixDisabled** () const  
*Checks if the sizePrefixDisabled flag is on.*
- void **setSizePrefixDisabled** (bool sizePrefixDisabled)  
*Sets if the sizePrefixDisabled flag is on.*
- long long **getMaxInactivityDuration** () const  
*Gets the MaxInactivityDuration setting.*
- void **setMaxInactivityDuration** (long long value)  
*Sets the MaxInactivityDuration setting.*
- long long **getMaxInactivityDurationInitialDelay** () const  
*Gets the MaxInactivityDurationInitialDelay setting.*
- void **setMaxInactivityDurationInitialDelay** (long long value)  
*Sets the MaxInactivityDurationInitialDelay setting.*

## Protected Member Functions

- **commands::DataStructure \* doUnmarshal** (decaf::io::DataInputStream \*dis)  
throw ( decaf::io::IOException )  
*Perform the actual unmarshal of data from the given DataInputStream return the unmarshalled DataStrucutre object once done, caller takes ownership of this object.*
- void **destroyMarshallers** ()  
*Cleans up all registered Marshallers and empties the dataMarshallers vector.*

## Static Protected Attributes

- static const unsigned char **NULL\_TYPE**
- static const int **DEFAULT\_VERSION** = 1

## 6.502.1 Constructor & Destructor Documentation

### 6.502.1.1 activemq::wireformat::openwire::OpenWireFormat::OpenWireFormat (const decaf::util::Properties & *properties*)

Constructs a new **OpenWireFormat** (p. 2448) object.

#### Parameters:

*properties* - can contain optional config params.

### 6.502.1.2 virtual activemq::wireformat::openwire::OpenWireFormat::~~OpenWireFormat () [virtual]

## 6.502.2 Member Function Documentation

### 6.502.2.1 void activemq::wireformat::openwire::OpenWireFormat::addMarshaller (marshal::DataStreamMarshaller \* *marshaller*)

Allows an external source to add marshalers to this object for types that may be marshaled or unmarshaled.

#### Parameters:

*marshaller* - the Marshaler to add to the collection.

### 6.502.2.2 virtual Pointer<transport::Transport> activemq::wireformat::openwire::OpenWireFormat::createNegotiator (const Pointer< transport::Transport > & *transport*) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

If the Transport Provides a Negotiator this method will create and return a news instance of the Negotiator.

#### Returns:

new instance of a **WireFormatNegotiator** (p. 3399).

Implements **activemq::wireformat::WireFormat** (p. 3364).

### 6.502.2.3 void activemq::wireformat::openwire::OpenWireFormat::destroyMarshallers () [protected]

Cleans up all registered Marshallers and empties the dataMarshallers vector. This should be called before a reconfiguration of the version marshallers, or on destruction of this object

**6.502.2.4** `commands::DataStructure* activemq::wireformat::openwire::OpenWireFormat::doUnmarshal (decaf::io::DataInputStream * dis) throw ( decaf::io::IOException )`  
[protected]

Perform the actual unmarshal of data from the given `DataInputStream` return the unmarshalled `DataStructure` object once done, caller takes ownership of this object. This method can return null if the type of the object to unmarshal is NULL, empty data.

**Parameters:**

*dis* - `DataInputStream` to read from

**Returns:**

new `DataStructure*` that the caller owns

**Exceptions:**

*IOException* if an error occurs during the unmarshal

**6.502.2.5** `int activemq::wireformat::openwire::OpenWireFormat::getCacheSize ()`  
`const` [inline]

Returns the currently set Cache size.

**Returns:**

the current value of the broker's cache size.

**6.502.2.6** `long long activemq::wireformat::openwire::OpenWireFormat::getMaxInactivityDuration ()`  
`const` [inline]

Gets the `MaxInactivityDuration` setting.

**Returns:**

maximum inactivity duration value in milliseconds.

**6.502.2.7** `long long activemq::wireformat::openwire::OpenWireFormat::getMaxInactivityDurationInitialDelay ()`  
`const` [inline]

Gets the `MaxInactivityDurationInitialDelay` setting.

**Returns:**

maximum inactivity duration initial delay value in milliseconds.



**6.502.2.8** `virtual const Pointer<commands::WireFormatInfo>& activemq::wireformat::openwire::OpenWireFormat::getPreferredWireFormatInfo () const [inline, virtual]`

Gets the Preferred WireFormatInfo object that this class holds.

**Returns:**

pointer to a preferred WireFormatInfo object

**6.502.2.9** `int activemq::wireformat::openwire::OpenWireFormat::getVersion () const [inline, virtual]`

Get the current Wireformat Version.

**Returns:**

int that identifies the version

Implements **activemq::wireformat::WireFormat** (p. 3364).

**6.502.2.10** `virtual bool activemq::wireformat::openwire::OpenWireFormat::hasNegotiator () const [inline, virtual]`

Returns true if this **WireFormat** (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.

**Returns:**

true if the **WireFormat** (p. 3363) provides a Negotiator.

Implements **activemq::wireformat::WireFormat** (p. 3364).

**6.502.2.11** `virtual bool activemq::wireformat::openwire::OpenWireFormat::inReceive () const [inline, virtual]`

Is there a Message being unmarshaled?

**Returns:**

true while in the doUnmarshal method.

Implements **activemq::wireformat::WireFormat** (p. 3365).

**6.502.2.12** `bool activemq::wireformat::openwire::OpenWireFormat::isCacheEnabled () const [inline]`

Checks if the cacheEnabled flag is on.

**Returns:**

true if the flag is on.

**6.502.2.13** `bool activemq::wireformat::openwire::OpenWireFormat::isSizePrefixDisabled () const [inline]`

Checks if the sizePrefixDisabled flag is on.

**Returns:**

true if the flag is on.

**6.502.2.14** `bool activemq::wireformat::openwire::OpenWireFormat::isStackTraceEnabled () const [inline]`

Checks if the stackTraceEnabled flag is on.

**Returns:**

true if the flag is on.

**6.502.2.15** `bool activemq::wireformat::openwire::OpenWireFormat::isTcpNoDelayEnabled () const [inline]`

Checks if the tcpNoDelayEnabled flag is on.

**Returns:**

true if the flag is on.

**6.502.2.16** `bool activemq::wireformat::openwire::OpenWireFormat::isTightEncodingEnabled () const [inline]`

Checks if the tightEncodingEnabled flag is on.

**Returns:**

true if the flag is on.

**6.502.2.17** `void activemq::wireformat::openwire::OpenWireFormat::looseMarshalNestedObject (commands::DataStructure * o, decaf::io::DataOutputStream * dataOut) throw ( decaf::io::IOException )`

Utility method to loosely Marshal an object that is derived from the DataStrucutre interface. The marshaled data is written to the passed in DataOutputStream.

**Parameters:**

*o* - DataStructure derived Object to Marshal

*dataOut* - DataOutputStream to write the data to

#### Exceptions:

*IOException* if an error occurs.

**6.502.2.18** `commands::DataStructure* activemq::wireformat::openwire::OpenWireFormat::looseUnmarshalNestedObject (decaf::io::DataInputStream * dis) throw ( decaf::io::IOException )`

Utility method to unmarshal an DataStructure object from an DataInputStream using the Loose Unmarshaling format. Will read the Data and construct a new DataStructure based Object, the pointer to the Object returned is now owned by the caller.

#### Parameters:

*dis* - the DataInputStream to read the data from

#### Returns:

a new DataStructure derived Object pointer

#### Exceptions:

*IOException* if an error occurs.

**6.502.2.19** `virtual void activemq::wireformat::openwire::OpenWireFormat::marshal (const Pointer< commands::Command > & command, const activemq::transport::Transport * transport, decaf::io::DataOutputStream * out) throw ( decaf::io::IOException )`  
[virtual]

Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.

#### Parameters:

*command* The Command to Marshal.

*transport* The Transport instance that called this method.

*out* The output stream to write the command to.

#### Exceptions:

*IOException*

Implements `activemq::wireformat::WireFormat` (p. 3365).

**6.502.2.20** `void activemq::wireformat::openwire::OpenWireFormat::renegotiateWireFormat (const commands::WireFormatInfo & info) throw ( decaf::lang::exceptions::IllegalStateException )`

Called to re-negotiate the settings for the WireFormatInfo, these determine how the client and broker communicate.

**Parameters:**

*info* - The new Wireformat Info settings

**Exceptions:**

*IllegalStateException* is wire format can't be negotiated.

**6.502.2.21** `void activemq::wireformat::openwire::OpenWireFormat::setCacheEnabled (bool cacheEnabled) [inline]`

Sets if the cacheEnabled flag is on.

**Parameters:**

*cacheEnabled* - true to turn flag is on

**6.502.2.22** `void activemq::wireformat::openwire::OpenWireFormat::setCacheSize (int value) [inline]`

Sets the current Cache size.

**Parameters:**

*value* - the value to send as the broker's cache size.

**6.502.2.23** `void activemq::wireformat::openwire::OpenWireFormat::setMaxInactivityDuration (long long value) [inline]`

Sets the MaxInactivityDuration setting.

**Parameters:**

*value* - the Max inactivity duration value in milliseconds.

**6.502.2.24** `void activemq::wireformat::openwire::OpenWireFormat::setMaxInactivityDurationInitialDelay (long long value) [inline]`

Sets the MaxInactivityDurationInitialDelay setting.

**Parameters:**

*value* - the Max inactivity Initial Delay duration value in milliseconds.

**6.502.2.25** `virtual void activemq::wireformat::openwire::OpenWireFormat::setPreferredWireFormatInfo (const Pointer< commands::WireFormatInfo > & info) throw ( decaf::lang::exceptions::IllegalStateException ) [virtual]`

Configures this object using the provided WireformatInfo object.

**Parameters:**

*info* - a WireFormatInfo object, takes ownership.

**6.502.2.26** void activemq::wireformat::openwire::OpenWireFormat::setSizePrefixDisabled (bool *sizePrefixDisabled*) [inline]

Sets if the sizePrefixDisabled flag is on.

**Parameters:**

*sizePrefixDisabled* - true to turn flag is on

**6.502.2.27** void activemq::wireformat::openwire::OpenWireFormat::setStackTraceEnabled (bool *stackTraceEnabled*) [inline]

Sets if the stackTraceEnabled flag is on.

**Parameters:**

*stackTraceEnabled* - true to turn flag is on

**6.502.2.28** void activemq::wireformat::openwire::OpenWireFormat::setTcpNoDelayEnabled (bool *tcpNoDelayEnabled*) [inline]

Sets if the tcpNoDelayEnabled flag is on.

**Parameters:**

*tcpNoDelayEnabled* - true to turn flag is on

**6.502.2.29** void activemq::wireformat::openwire::OpenWireFormat::setTightEncodingEnabled (bool *tightEncodingEnabled*) [inline]

Sets if the tightEncodingEnabled flag is on.

**Parameters:**

*tightEncodingEnabled* - true to turn flag is on

**6.502.2.30** void activemq::wireformat::openwire::OpenWireFormat::setVersion (int *version*) throw ( decaf::lang::exceptions::IllegalArgumentException ) [virtual]

Set the current Wireformat Version.

**Parameters:**

*version* - int that identifies the version

Implements **activemq::wireformat::WireFormat** (p. 3365).

**6.502.2.31** `virtual int activemq::wireformat::openwire::OpenWireFormat::tightMarshalNestedObject1(commands::DataStructure * object, utils::BooleanStream * bs) throw (decaf::io::IOException)` [virtual]

Utility method for Tight Marshaling the given object to the boolean stream passed.

**Parameters:**

*object* - The DataStructure to marshal

*bs* - the BooleanStream to write to

**Returns:**

size of the data returned.

**6.502.2.32** `void activemq::wireformat::openwire::OpenWireFormat::tightMarshalNestedObject2(commands::DataStructure * o, decaf::io::DataOutputStream * ds, utils::BooleanStream * bs) throw (decaf::io::IOException)`

Utility method that will Tight marshal some internally nested object that implements the DataStructure interface. Writes the data to the Data Output Stream provided.

**Parameters:**

*o* - DataStructure object

*ds* - DataOutputStream for writing

*bs* - BooleanStream

**Exceptions:**

*IOException* if an error occurs.

**6.502.2.33** `commands::DataStructure* activemq::wireformat::openwire::OpenWireFormat::tightUnmarshalNestedObject(decaf::io::DataInputStream * dis, utils::BooleanStream * bs) throw (decaf::io::IOException)`

Utility method used to Unmarshal a Nested DataStructure type object from the given DataInputStream. The DataStructure instance that is returned is now the property of the caller.

**Parameters:**

*dis* - DataInputStream to read from

*bs* - BooleanStream to read from

**Returns:**

Newly allocated DataStructure Object

**Exceptions:**

*IOException* if an error occurs.

**6.502.2.34** virtual Pointer<commands::Command> activemq::wireformat::openwire::OpenWireFormat::unmarshal (const activemq::transport::Transport \* *transport*, decaf::io::DataInputStream \* *in*) throw ( decaf::io::IOException ) [virtual]

Stream based un-marshaling, blocks on reads on the input stream until a complete command has been read and un-marshaled into the correct form. Returns a Pointer to the newly un-marshaled Command.

**Parameters:**

*transport* - Pointer to the transport that is making this request.

*in* - the input stream to read the command from.

**Returns:**

the newly marshaled Command, caller owns the pointer

**Exceptions:**

*IOException*

Implements **activemq::wireformat::WireFormat** (p. 3366).

## 6.502.3 Field Documentation

**6.502.3.1** const int  
activemq::wireformat::openwire::OpenWireFormat::DEFAULT\_VERSION = 1 [static, protected]

**6.502.3.2** const unsigned char  
activemq::wireformat::openwire::OpenWireFormat::NULL\_TYPE [static, protected]

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/OpenWireFormat.h

## 6.503 activemq::wireformat::openwire::OpenWireFormatFactory Class Reference

#include <src/main/activemq/wireformat/openwire/OpenWireFormatFactory.h> Inheritance diagram for activemq::wireformat::openwire::OpenWireFormatFactory:

### Public Member Functions

- **OpenWireFormatFactory ()**

*Constructor - Sets Defaults for all properties, these are all subject to change once the `createWireFormat` method is called.*

- **virtual ~OpenWireFormatFactory ()**

- **virtual Pointer< wireformat::WireFormat > createWireFormat (const decaf::util::Properties &properties) throw ( decaf::lang::exceptions::IllegalStateException )**

*Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.*

### 6.503.1 Constructor & Destructor Documentation

#### 6.503.1.1 activemq::wireformat::openwire::OpenWireFormatFactory::OpenWireFormatFactory () [inline]

Constructor - Sets Defaults for all properties, these are all subject to change once the `createWireFormat` method is called. URL options ----- wireFormat.stackTraceEnabled wireFormat.cacheEnabled wireFormat.tcpNoDelayEnabled wireFormat.tightEncodingEnabled wireFormat.sizePrefixDisabled wireFormat.maxInactivityDuration wireFormat.maxInactivityDurationInitialDelay

#### 6.503.1.2 virtual activemq::wireformat::openwire::OpenWireFormatFactory::~~OpenWireFormatFactory () [inline, virtual]

### 6.503.2 Member Function Documentation

#### 6.503.2.1 virtual Pointer<wireformat::WireFormat> activemq::wireformat::openwire::OpenWireFormatFactory::createWireFormat (const decaf::util::Properties & *properties*) throw ( decaf::lang::exceptions::IllegalStateException ) [virtual]

Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.

#### Parameters:

*properties* - the Properties for this **WireFormat** (p. 3363)



Implements **activemq::wireformat::WireFormatFactory** (p. 3367).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/OpenWireFormatFactory.h`

## 6.504 activemq::wireformat::openwire::OpenWireFormatNegotiator Class Reference

#include <src/main/activemq/wireformat/openwire/OpenWireFormatNegotiator.h> Inheritance diagram for activemq::wireformat::openwire::OpenWireFormatNegotiator:

### Public Member Functions

- **OpenWireFormatNegotiator** (**OpenWireFormat** \*wireFormat, const **Pointer**< **transport::Transport** > &next)

*Constructor - Initializes this object around another Transport.*

- virtual ~**OpenWireFormatNegotiator** ()
- virtual void **oneway** (const **Pointer**< **commands::Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Sends a one-way command.*

- virtual **Pointer**< **commands::Response** > **request** (const **Pointer**< **commands::Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Sends the given request to the server and waits for the response.*

- virtual **Pointer**< **commands::Response** > **request** (const **Pointer**< **commands::Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )

*Sends the given request to the server and waits for the response.*

- virtual void **onCommand** (const **Pointer**< **commands::Command** > &command)

*This is called in the context of the nested transport's reading thread.*

- virtual void **onTransportException** (**transport::Transport** \*source, const **decaf::lang::Exception** &ex)

*Event handler for an exception from a command transport.*

- virtual void **start** () throw ( decaf::io::IOException )

*Starts this transport object and creates the thread for polling on the input stream for commands.*

- virtual void **close** () throw ( decaf::io::IOException )

*Stops the polling thread and closes the streams.*

### 6.504.1 Constructor & Destructor Documentation

#### 6.504.1.1 activemq::wireformat::openwire::OpenWireFormatNegotiator::OpenWireFormatNegotiator (**OpenWireFormat** \* wireFormat, const **Pointer**< **transport::Transport** > & next)

Constructor - Initializes this object around another Transport.

**Parameters:**

*wireFormat* - The **WireFormat** (p. 3363) object we use to negotiate

*next* - The next transport in the chain

**6.504.1.2**    **virtual**  
              **activemq::wireformat::openwire::OpenWireFormatNegotiator::~~OpenWireFormatNegotiator**  
              **()**    [virtual]

**6.504.2 Member Function Documentation**

**6.504.2.1**    **virtual void ac-**  
              **tivemq::wireformat::openwire::OpenWireFormatNegotiator::close ()**  
              **throw ( decaf::io::IOException )**    [virtual]

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

**Exceptions:**

*IOException* if errors occur.

Reimplemented from **activemq::transport::TransportFilter** (p. 3283).

**6.504.2.2**    **virtual void ac-**  
              **tivemq::wireformat::openwire::OpenWireFormatNegotiator::onCommand**  
              **(const Pointer< commands::Command > & command)**    [virtual]

This is called in the context of the nested transport's reading thread. In the case of a response object, updates the request map and notifies those waiting on the response. Non-response messages are just delegated to the command listener.

**Parameters:**

*command* the received from the nested transport.

Reimplemented from **activemq::transport::TransportFilter** (p. 3285).

**6.504.2.3**    **virtual void ac-**  
              **tivemq::wireformat::openwire::OpenWireFormatNegotiator::oneway**  
              **(const Pointer< commands::Command > &**  
              **command) throw ( decaf::io::IOException, de-**  
              **caf::lang::exceptions::UnsupportedOperationException )**  
              **[virtual]**

Sends a one-way command. Does not wait for any response from the broker. First waits for the WireFormatInfo exchange to happen so that we know how to encode out-bound data.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Reimplemented from `activemq::transport::TransportFilter` (p. 3285).

**6.504.2.4** `virtual void activemq::wireformat::openwire::OpenWireFormatNegotiator::onTransportException (transport::Transport * source, const decaf::lang::Exception & ex) [virtual]`

Event handler for an exception from a command transport.

**Parameters:**

*source* The source of the exception  
*ex* The exception.

**6.504.2.5** `virtual Pointer<commands::Response> activemq::wireformat::openwire::OpenWireFormatNegotiator::request (const Pointer< commands::Command > & command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given request to the server and waits for the response. First waits for the WireFormatInfo exchange to happen so that we know how to encode out-bound data.

**Parameters:**

*command* The request to send.  
*timeout* The time to wait for the response.

**Returns:**

the response from the server.

**Exceptions:**

*IOException* if an error occurs with the request.

Reimplemented from `activemq::transport::TransportFilter` (p. 3286).

**6.504.2.6** `virtual Pointer<commands::Response> activemq::wireformat::openwire::OpenWireFormatNegotiator::request (const Pointer< commands::Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given request to the server and waits for the response. First waits for the WireFormatInfo exchange to happen so that we know how to encode out-bound data.

**Parameters:**

*command* The request to send.

**Returns:**

the response from the server.

**Exceptions:**

*IOException* if an error occurs with the request.

Reimplemented from **activemq::transport::TransportFilter** (p. 3287).

**6.504.2.7 virtual void activemq::wireformat::openwire::OpenWireFormatNegotiator::start () throw ( decaf::io::IOException ) [virtual]**

Starts this transport object and creates the thread for polling on the input stream for commands. If this object has been closed, throws an exception. Before calling start, the caller must set the IO streams and the reader and writer objects.

**Exceptions:**

*IOException* if an error occurs or if this transport has already been closed.

Reimplemented from **activemq::transport::TransportFilter** (p. 3287).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/**OpenWireFormatNegotiator.h**

## 6.505 activemq::wireformat::openwire::OpenWireResponseBuilder Class Reference

#include <src/main/activemq/wireformat/openwire/OpenWireResponseBuilder.h> Inheritance diagram for activemq::wireformat::openwire::OpenWireResponseBuilder:

### Public Member Functions

- **OpenWireResponseBuilder** ()
- virtual **~OpenWireResponseBuilder** ()
- virtual **Pointer< commands::Response > buildResponse** (const **Pointer< commands::Command > &command**)

*Given a Command, check if it requires a response and return the appropriate Response that the Broker would send for this Command.*

- virtual void **buildIncomingCommands** (const **Pointer< commands::Command > &command**, **decaf::util::StlQueue< Pointer< commands::Command > > &queue**)

*When called the ResponseBuilder must construct all the Responses or Asynchronous commands that would be sent to this client by the Broker upon receipt of the passed command.*

### 6.505.1 Constructor & Destructor Documentation

**6.505.1.1** **activemq::wireformat::openwire::OpenWireResponseBuilder::OpenWireResponseBuilder** () [inline]

**6.505.1.2** **virtual** **activemq::wireformat::openwire::OpenWireResponseBuilder::~~OpenWireResponseBuilder** () [inline, virtual]

### 6.505.2 Member Function Documentation

**6.505.2.1** **virtual void** **activemq::wireformat::openwire::OpenWireResponseBuilder::buildIncomingCommands** (const **Pointer< commands::Command > & command**, **decaf::util::StlQueue< Pointer< commands::Command > > & queue**) [virtual]

When called the ResponseBuilder must construct all the Responses or Asynchronous commands that would be sent to this client by the Broker upon receipt of the passed command.

#### Parameters:

*command* - The Command being sent to the Broker.

*queue* - Queue of Command sent back from the broker.

Implements **activemq::transport::mock::ResponseBuilder** (p. 2785).

**6.505.2.2** `virtual Pointer<commands::Response> activemq::wireformat::openwire::OpenWireResponseBuilder::buildResponse(const Pointer< commands::Command > & command) [virtual]`

Given a Command, check if it requires a response and return the appropriate Response that the Broker would send for this Command.

**Parameters:**

*command* - The command to build a response for

**Returns:**

A Response object pointer, or NULL if no response.

Implements **activemq::transport::mock::ResponseBuilder** (p. 2786).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/OpenWireResponseBuilder.h`

## 6.506 activemq::wireformat::openwire::utils::OpenwireStringSupport Class Reference

```
#include <src/main/activemq/wireformat/openwire/utils/OpenwireStringSupport.h>
```

### Static Public Member Functions

- static std::string **readString** (decaf::io::DataInputStream &dataIn) throw ( decaf::io::IOException )

*Static method used for reading a string that uses the Openwire format from a DataInputStream, this can throw an IOException for the same reason as a DataInputStream.readUTF might, as well as if the string that is received doesn't conform to the supported character encoding.*

- static void **writeString** (decaf::io::DataOutputStream &dataOut, const std::string \*str) throw ( decaf::io::IOException )

*Static method used for writing a string that uses the Openwire format from a DataOutputStream, this can throw an IOException for the same reason as a DataOutputStream.writeUTF might.*

### Protected Member Functions

- OpenwireStringSupport ()
- virtual ~OpenwireStringSupport ()

### 6.506.1 Constructor & Destructor Documentation

**6.506.1.1** **activemq::wireformat::openwire::utils::OpenwireStringSupport::OpenwireStringSupport** () [inline, protected]

**6.506.1.2** **virtual**  
**activemq::wireformat::openwire::utils::OpenwireStringSupport::~~OpenwireStringSupport** () [inline, protected, virtual]

### 6.506.2 Member Function Documentation

**6.506.2.1** **static** std::string **activemq::wireformat::openwire::utils::OpenwireStringSupport::readString** (decaf::io::DataInputStream & *dataIn*) throw ( decaf::io::IOException ) [static]

Static method used for reading a string that uses the Openwire format from a DataInputStream, this can throw an IOException for the same reason as a DataInputStream.readUTF might, as well as if the string that is received doesn't conform to the supported character encoding.

#### Parameters:

*dataIn* - DataInputStream to read from

#### Returns:

A string that has been read



Exceptions:

*IOException* on Error.

**6.506.2.2** static void activemq::wireformat::openwire::utils::OpenwireStringSupport::writeString (decaf::io::DataOutputStream & *dataOut*, const std::string \* *str*) throw (decaf::io::IOException) [static]

Static method used for writing a string that uses the Openwire format from a DataOutputStream, this can throw an IOException for the same reason as a DataOutputStream.writeUTF might.

Parameters:

*dataOut* - DataOutputStream to write to

*str* - A pointer to a string that should be written, NULL needs to be an option here as its written as -1.

Exceptions:

*IOException* on Error.

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/utils/**OpenwireStringSupport.h**

## 6.507 decaf::io::OutputStream Class Reference

Base interface for an output stream.

#include <src/main/decaf/io/OutputStream.h> Inheritance diagram for decaf::io::OutputStream:

### Public Member Functions

- virtual **~OutputStream** ()
- virtual void **write** (unsigned char c)=0 throw ( IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer)=0 throw ( IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len)=0 throw ( IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** ()=0 throw ( IOException )  
*Flushes any pending writes in this output stream.*

### 6.507.1 Detailed Description

Base interface for an output stream.

### 6.507.2 Constructor & Destructor Documentation

**6.507.2.1** virtual decaf::io::OutputStream::~~OutputStream () [inline, virtual]

### 6.507.3 Member Function Documentation

**6.507.3.1** virtual void decaf::io::OutputStream::flush () throw ( IOException )  
 [pure virtual]

Flushes any pending writes in this output stream.

#### Exceptions:

*IOException* (p. 1820)

Implemented in **decaf::internal::io::StandardErrorOutputStream** (p. 2995), **decaf::internal::io::StandardOutputStream** (p. 3009), **decaf::io::BufferedOutputStream** (p. 815), **decaf::io::ByteArrayOutputStream** (p. 902), **decaf::io::FilterOutputStream** (p. 1642), and **decaf::net::SocketOutputStream** (p. 2985).

**6.507.3.2** virtual void decaf::io::OutputStream::write (const unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *len*) throw ( IOException, lang::exceptions::NullPointerException ) [pure virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The array of bytes to write.

*offset* the position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* thrown if buffer is Null.

Implemented in `activemq::io::LoggingOutputStream` (p. 2040), `decaf::internal::io::StandardErrorOutputStream` (p. 2998), `decaf::internal::io::StandardOutputStream` (p. 3012), `decaf::io::BufferedOutputStream` (p. 815), `decaf::io::ByteArrayOutputStream` (p. 906), `decaf::io::DataOutputStream` (p. 1390), `decaf::io::FilterOutputStream` (p. 1645), and `decaf::net::SocketOutputStream` (p. 2988).

**6.507.3.3** virtual void decaf::io::OutputStream::write (const std::vector< unsigned char > & *buffer*) throw ( IOException ) [pure virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implemented in `decaf::internal::io::StandardErrorOutputStream` (p. 2999), `decaf::internal::io::StandardOutputStream` (p. 3012), `decaf::io::BufferedOutputStream` (p. 816), `decaf::io::ByteArrayOutputStream` (p. 906), `decaf::io::DataOutputStream` (p. 1390), `decaf::io::FilterOutputStream` (p. 1646), and `decaf::net::SocketOutputStream` (p. 2989).

**6.507.3.4** virtual void decaf::io::OutputStream::write (unsigned char *c*) throw ( IOException ) [pure virtual]

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

Implemented in `activemq::io::LoggingOutputStream` (p. 2041), `decaf::internal::io::StandardErrorOutputStream` (p. 2999), `decaf::internal::io::StandardOutputStream` (p. 3013), `decaf::io::BufferedOutputStream` (p. 816), `decaf::io::ByteArrayOutputStream` (p. 907), `decaf::io::DataOutputStream` (p. 1390), `decaf::io::FilterOutputStream` (p. 1646), and `decaf::net::SocketOutputStream` (p. 2989).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/OutputStream.h`

## 6.508 activemq::commands::PartialCommand Class Reference

#include <src/main/activemq/commands/PartialCommand.h> Inheritance diagram for activemq::commands::PartialCommand:

### Public Member Functions

- **PartialCommand** ()
- virtual **~PartialCommand** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **PartialCommand \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getCommandId** () const
- virtual void **setCommandId** (int commandId)
- virtual const std::vector< unsigned char > & **getData** () const
- virtual std::vector< unsigned char > & **getData** ()
- virtual void **setData** (const std::vector< unsigned char > &data)

### Static Public Attributes

- static const unsigned char **ID\_PARTIALCOMMAND** = 60

### Protected Member Functions

- **PartialCommand** (const **PartialCommand** &)
- **PartialCommand** & **operator=** (const **PartialCommand** &)

### Protected Attributes

- int **commandId**
- std::vector< unsigned char > **data**

## 6.508.1 Constructor & Destructor Documentation

**6.508.1.1** `activemq::commands::PartialCommand::PartialCommand (const PartialCommand &) [inline, protected]`

**6.508.1.2** `activemq::commands::PartialCommand::PartialCommand ()`

**6.508.1.3** `virtual activemq::commands::PartialCommand::~~PartialCommand () [virtual]`

## 6.508.2 Member Function Documentation

**6.508.2.1** `virtual PartialCommand* activemq::commands::PartialCommand::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

Reimplemented in `activemq::commands::LastPartialCommand` (p. 1959).

**6.508.2.2** `virtual void activemq::commands::PartialCommand::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

Reimplemented in `activemq::commands::LastPartialCommand` (p. 1959).

**6.508.2.3** `virtual bool activemq::commands::PartialCommand::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Implements `activemq::commands::DataStructure` (p. 1463).

Reimplemented in `activemq::commands::LastPartialCommand` (p. 1959).

**6.508.2.4** `virtual int activemq::commands::PartialCommand::getCommandId () const [virtual]`

**6.508.2.5** `virtual std::vector<unsigned char>& activemq::commands::PartialCommand::getData () [virtual]`

**6.508.2.6** `virtual const std::vector<unsigned char>& activemq::commands::PartialCommand::getData () const [virtual]`

**6.508.2.7** `virtual unsigned char activemq::commands::PartialCommand::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSetructure** (p. 1461) type copy.

Implements **activemq::commands::DataSetructure** (p. 1464).

Reimplemented in **activemq::commands::LastPartialCommand** (p. 1960).

**6.508.2.8** `PartialCommand& activemq::commands::PartialCommand::operator= (const PartialCommand &) [inline, protected]`

**6.508.2.9** `virtual void activemq::commands::PartialCommand::setCommandId (int commandId) [virtual]`

**6.508.2.10** `virtual void activemq::commands::PartialCommand::setData (const std::vector< unsigned char > & data) [virtual]`

**6.508.2.11** `virtual std::string activemq::commands::PartialCommand::toString () const [virtual]`

Returns a string containing the information for this **DataSetructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSetructure** (p. 718).

Reimplemented in **activemq::commands::LastPartialCommand** (p. 1960).

### 6.508.3 Field Documentation

**6.508.3.1** `int activemq::commands::PartialCommand::commandId` [protected]

**6.508.3.2** `std::vector<unsigned char> activemq::commands::PartialCommand::data`  
[protected]

**6.508.3.3** `const unsigned char activemq::commands::PartialCommand::ID_ -`  
`PARTIALCOMMAND = 60` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/PartialCommand.h`



## 6.509 activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2477).

#include <src/main/activemq/wireformat/openwire/marshal/v2/PartialCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller:

### Public Member Functions

- **PartialCommandMarshaller** ()
- virtual **~PartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.509.1 Detailed Description

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2477). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.509.2 Constructor & Destructor Documentation

**6.509.2.1** `activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::PartialCommandMarshaller()` [inline]

**6.509.2.2** `virtual activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::~~PartialCommandMarshaller()` [inline, virtual]

## 6.509.3 Member Function Documentation

**6.509.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller` (p. 1962).

**6.509.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller` (p. 1962).

**6.509.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller** (p. 1962).

**6.509.3.4 virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::looseUnmarshal**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure  
\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (  
decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller** (p. 1963).

**6.509.3.5 virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::tightMarshal1**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \*  
*dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException  
) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller** (p. 1963).

**6.509.3.6** virtual void activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller** (p. 1964).

**6.509.3.7** virtual void activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller** (p. 1964).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**PartialCommandMarshaller.h**

## 6.510 activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2481).

#include <src/main/activemq/wireformat/openwire/marshal/v3/PartialCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller:

### Public Member Functions

- **PartialCommandMarshaller** ()
- virtual **~PartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.510.1 Detailed Description

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2481). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.510.2 Constructor & Destructor Documentation

**6.510.2.1** `activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::PartialCommandMarshaller()` [inline]

**6.510.2.2** `virtual activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::~~PartialCommandMarshaller()` [inline, virtual]

## 6.510.3 Member Function Documentation

**6.510.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller` (p. 1970).

**6.510.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller` (p. 1970).

**6.510.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller** (p. 1970).

**6.510.3.4 virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::looseUnmarshal**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure  
\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (  
decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller** (p. 1971).

**6.510.3.5 virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::tightMarshal1**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \*  
*dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException  
) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller** (p. 1971).

**6.510.3.6** virtual void activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller** (p. 1972).

**6.510.3.7** virtual void activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller** (p. 1972).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**PartialCommandMarshaller.h**



## 6.511 activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2485).

#include <src/main/activemq/wireformat/openwire/marshal/v4/PartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller:

### Public Member Functions

- **PartialCommandMarshaller** ()
- virtual **~PartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.511.1 Detailed Description

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2485). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.511.2 Constructor & Destructor Documentation

**6.511.2.1** `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::PartialCommandMarshaller()` [inline]

**6.511.2.2** `virtual activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::~~PartialCommandMarshaller()` [inline, virtual]

## 6.511.3 Member Function Documentation

**6.511.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller` (p. 1974).

**6.511.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller` (p. 1974).

**6.511.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller` (p. 1974).

**6.511.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw (`decaf::io::IOException`) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller` (p. 1975).

**6.511.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw (`decaf::io::IOException`) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller` (p. 1975).

**6.511.3.6** virtual void activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller** (p. 1976).

**6.511.3.7** virtual void activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller** (p. 1976).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**PartialCommandMarshaller.h**

## 6.512 activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2489).

#include <src/main/activemq/wireformat/openwire/marshal/v1/PartialCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller:

### Public Member Functions

- **PartialCommandMarshaller** ()
- virtual **~PartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.512.1 Detailed Description

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2489). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.512.2 Constructor & Destructor Documentation

**6.512.2.1** `activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::PartialCommandMarshaller()` [inline]

**6.512.2.2** `virtual activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::~~PartialCommandMarshaller()` [inline, virtual]

## 6.512.3 Member Function Documentation

**6.512.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller` (p. 1966).

**6.512.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller` (p. 1966).

**6.512.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller** (p. 1966).

**6.512.3.4 virtual void activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::looseUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw ( decaf::io::IOException )** [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller** (p. 1967).

**6.512.3.5 virtual int activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::tightMarshal1 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException )** [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller** (p. 1967).

**6.512.3.6** `virtual void activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller` (p. 1968).

**6.512.3.7** `virtual void activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller` (p. 1968).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/PartialCommandMarshaller.h`



## 6.513 activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2493).

#include <src/main/activemq/wireformat/openwire/marshal/v5/PartialCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller:

### Public Member Functions

- **PartialCommandMarshaller** ()
- virtual **~PartialCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.513.1 Detailed Description

Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2493). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.513.2 Constructor & Destructor Documentation

**6.513.2.1** `activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::PartialCommandMarshaller()` [inline]

**6.513.2.2** `virtual activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::~~PartialCommandMarshaller()` [inline, virtual]

## 6.513.3 Member Function Documentation

**6.513.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller` (p. 1978).

**6.513.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller` (p. 1978).

**6.513.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller** (p. 1978).

**6.513.3.4 virtual void ac-**  
**tivemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::looseUnmarshal**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure  
\* *dataStructure*, decaf::io::DataInputStream \* *dataIn*) throw (  
decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller** (p. 1979).

**6.513.3.5 virtual int ac-**  
**tivemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::tightMarshal1**  
(OpenWireFormat \* *wireFormat*, commands::DataStructure \*  
*dataStructure*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException  
) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller** (p. 1979).

**6.513.3.6** `virtual void activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller` (p. 1980).

**6.513.3.7** `virtual void activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller` (p. 1980).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/PartialCommandMarshaller.h`

## 6.514 decaf::lang::Pointer< T, REFCOUNTER > Class Template Reference

Decaf's implementation of a Smart **Pointer** (p. 2497) that is a template on a Type and is Thread Safe if the default Reference Counter is used.

```
#include <src/main/decaf/lang/Pointer.h>
```

### Public Types

- typedef T \* **PointerType**
- typedef T & **ReferenceType**
- typedef REFCOUNTER **CounterType**

### Public Member Functions

- **Pointer** ()  
*Default Constructor.*
- **Pointer** (const **PointerType** value)  
*Explicit Constructor, creates a **Pointer** (p. 2497) that contains value with a single reference.*
- **Pointer** (const **Pointer** &value) throw ()  
*Copy constructor.*
- template<typename T1 , typename R1 >  
**Pointer** (const **Pointer**< T1, R1 > &value) throw ()  
*Copy constructor.*
- template<typename T1 , typename R1 >  
**Pointer** (const **Pointer**< T1, R1 > &value, const **STATIC\_CAST\_TOKEN** &) throw ()  
*Static Cast constructor.*
- template<typename T1 , typename R1 >  
**Pointer** (const **Pointer**< T1, R1 > &value, const **DYNAMIC\_CAST\_TOKEN** &) throw ( decaf::lang::exceptions::ClassCastException )  
*Dynamic Cast constructor.*
- virtual ~**Pointer** () throw ()
- void **reset** (T \*value)  
*Resets the **Pointer** (p. 2497) to hold the new value.*
- T \* **release** ()  
*Releases the **Pointer** (p. 2497) held and resets the internal pointer value to Null.*
- **PointerType** **get** () const  
*Gets the real pointer that is contained within this **Pointer** (p. 2497).*
- void **swap** (**Pointer** &value) throw ()

*Exception (p. 1574) Safe Swap Function.*

- **Pointer & operator=** (const **Pointer** &right) throw ()  
*Assigns the value of right to this **Pointer** (p. 2497) and increments the reference Count.*
- template<typename T1 , typename R1 >  
**Pointer & operator=** (const **Pointer**< T1, R1 > &right) throw ()
- **ReferenceType operator\*** ()  
*Dereference Operator, returns a reference to the Contained value.*
- **ReferenceType operator\*** () const
- **PointerType operator->** ()  
*Indirection Operator, returns a pointer to the Contained value.*
- **PointerType operator->** () const
- bool **operator!** () const
- template<typename T1 , typename R1 >  
 bool **operator==** (const **Pointer**< T1, R1 > &right) const
- template<typename T1 , typename R1 >  
 bool **operator!=** (const **Pointer**< T1, R1 > &right) const
- template<typename T1 >  
**Pointer**< T1, **CounterType** > **dynamicCast** () const
- template<typename T1 >  
**Pointer**< T1, **CounterType** > **staticCast** () const

## Friends

- bool **operator==** (const **Pointer** &left, const T \*right)
- bool **operator==** (const T \*left, const **Pointer** &right)
- bool **operator!=** (const **Pointer** &left, const T \*right)
- bool **operator!=** (const T \*left, const **Pointer** &right)

### 6.514.1 Detailed Description

```
template<typename T, typename REFCOUNTER = AtomicRefCounter> class
decaf::lang::Pointer< T, REFCOUNTER >
```

Decaf's implementation of a Smart **Pointer** (p. 2497) that is a template on a Type and is Thread Safe if the default Reference Counter is used. This **Pointer** (p. 2497) type allows for the substitution of different Reference Counter implementations which provide a means of using invasive reference counting if desired using a custom implementation of **ReferenceCounter**.

The Decaf smart pointer provide comparison operators for comparing **Pointer** (p. 2497) instances in the same manner as normal pointer, except that it does not provide an overload of operators (<, <=, >, >=). To allow use of a **Pointer** (p. 2497) in a STL container that requires it, **Pointer** (p. 2497) provides an implementation of std::less.

Since:

1.0

## 6.514.2 Member Typedef Documentation

- 6.514.2.1** `template<typename T, typename REFCOUNTER = AtomicRefCount> typedef REFCOUNTER decaf::lang::Pointer< T, REFCOUNTER >::CounterType`
- 6.514.2.2** `template<typename T, typename REFCOUNTER = AtomicRefCount> typedef T* decaf::lang::Pointer< T, REFCOUNTER >::PointerType`
- 6.514.2.3** `template<typename T, typename REFCOUNTER = AtomicRefCount> typedef T& decaf::lang::Pointer< T, REFCOUNTER >::ReferenceType`

## 6.514.3 Constructor & Destructor Documentation

- 6.514.3.1** `template<typename T, typename REFCOUNTER = AtomicRefCount> decaf::lang::Pointer< T, REFCOUNTER >::Pointer () [inline]`

Default Constructor. Initialized the contained pointer to NULL, using the -> operator results in an exception unless reset to contain a real value.

Referenced by `decaf::lang::Pointer< TransactionId >::reset()`.

- 6.514.3.2** `template<typename T, typename REFCOUNTER = AtomicRefCount> decaf::lang::Pointer< T, REFCOUNTER >::Pointer (const PointerType value) [inline, explicit]`

Explicit Constructor, creates a **Pointer** (p. 2497) that contains value with a single reference. This object now has ownership until a call to release.

### Parameters:

*value* - instance of the type we are containing here.

- 6.514.3.3** `template<typename T, typename REFCOUNTER = AtomicRefCount> decaf::lang::Pointer< T, REFCOUNTER >::Pointer (const Pointer< T, REFCOUNTER > & value) throw () [inline]`

Copy constructor. Copies the value contained in the pointer to the new instance and increments the reference counter.

- 6.514.3.4** `template<typename T, typename REFCOUNTER = AtomicRefCount> template<typename T1 , typename R1 > decaf::lang::Pointer< T, REFCOUNTER >::Pointer (const Pointer< T1, R1 > & value) throw () [inline]`

Copy constructor. Copies the value contained in the pointer to the new instance and increments the reference counter.

```

6.514.3.5  template<typename T, typename REFCOUNTER =
           AtomicRefCount> template<typename T1 , typename R1 >
           decaf::lang::Pointer< T, REFCOUNTER >::Pointer (const Pointer< T1,
           R1 > & value, const STATIC_CAST_TOKEN &) throw () [inline]

```

Static Cast constructor. Copies the value contained in the pointer to the new instance and increments the reference counter performing a static cast on the value contained in the source **Pointer** (p.2497) object.

**Parameters:**

*value* - **Pointer** (p.2497) instance to cast to this type.

```

6.514.3.6  template<typename T, typename REFCOUNTER =
           AtomicRefCount> template<typename T1 , typename R1 >
           decaf::lang::Pointer< T, REFCOUNTER >::Pointer (const Pointer<
           T1, R1 > & value, const DYNAMIC_CAST_TOKEN &) throw (
           decaf::lang::exceptions::ClassCastException ) [inline]

```

Dynamic Cast constructor. Copies the value contained in the pointer to the new instance and increments the reference counter performing a dynamic cast on the value contained in the source **Pointer** (p.2497) object. If the cast fails and return NULL then this method throws a **ClassCastException**.

**Parameters:**

*value* - **Pointer** (p.2497) instance to cast to this type.

**Exceptions:**

**ClassCastException** if the dynamic cast returns NULL

```

6.514.3.7  template<typename T, typename REFCOUNTER =
           AtomicRefCount> virtual decaf::lang::Pointer< T, REFCOUNTER
           >::~Pointer () throw () [inline, virtual]

```

## 6.514.4 Member Function Documentation

```

6.514.4.1  template<typename T, typename REFCOUNTER =
           AtomicRefCount> template<typename T1 > Pointer<T1,
           CounterType> decaf::lang::Pointer< T, REFCOUNTER >::dynamicCast
           () const [inline]

```

```

6.514.4.2  template<typename T, typename REFCOUNTER =
           AtomicRefCount> PointerType decaf::lang::Pointer< T,
           REFCOUNTER >::get () const [inline]

```

Gets the real pointer that is contained within this **Pointer** (p.2497). This is not really safe since the caller could delete or alter the pointer but it mimics the STL `auto_ptr` and gives access in cases where the caller absolutely needs the real **Pointer** (p.2497). Use at your own risk.



**Returns:**

the contained pointer.

Referenced by activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage >::equals(), activemq::core::ActiveMQConnectionSupport::getProperties(), activemq::core::ActiveMQConnectionSupport::getTransport(), decaf::lang::operator!=(), decaf::lang::Pointer< TransactionId >::operator!=(), std::less< decaf::lang::Pointer< T > >::operator()(), decaf::lang::operator==(), decaf::lang::Pointer< TransactionId >::operator==(), and activemq::state::ConnectionState::removeTempDestination().

**6.514.4.3** `template<typename T, typename REFCOUNTER = AtomicRefCounter> bool decaf::lang::Pointer< T, REFCOUNTER >::operator! () const [inline]`

**6.514.4.4** `template<typename T, typename REFCOUNTER = AtomicRefCounter> template<typename T1, typename R1 > bool decaf::lang::Pointer< T, REFCOUNTER >::operator!= (const Pointer< T1, R1 > & right) const [inline]`

**6.514.4.5** `template<typename T, typename REFCOUNTER = AtomicRefCounter> ReferenceType decaf::lang::Pointer< T, REFCOUNTER >::operator* () const [inline]`

**6.514.4.6** `template<typename T, typename REFCOUNTER = AtomicRefCounter> ReferenceType decaf::lang::Pointer< T, REFCOUNTER >::operator* () [inline]`

Dereference Operator, returns a reference to the Contained value. This method throws an `NullPointerException` if the contained value is `NULL`.

**Returns:**

reference to the contained pointer.

**Exceptions:**

*NullPointerException* if the contained value is `Null`

**6.514.4.7** `template<typename T, typename REFCOUNTER = AtomicRefCounter> PointerType decaf::lang::Pointer< T, REFCOUNTER >::operator-> () const [inline]`

**6.514.4.8** `template<typename T, typename REFCOUNTER = AtomicRefCounter> PointerType decaf::lang::Pointer< T, REFCOUNTER >::operator-> () [inline]`

Indirection Operator, returns a pointer to the Contained value. This method throws an `NullPointerException` if the contained value is `NULL`.

**Returns:**

reference to the contained pointer.

**Exceptions:**

*NullPointerException* if the contained value is Null

- 6.514.4.9** `template<typename T, typename REFCOUNTER = AtomicRefCount> template<typename T1, typename R1 > Pointer& decaf::lang::Pointer< T, REFCOUNTER >::operator= (const Pointer< T1, R1 > & right) throw () [inline]`
- 6.514.4.10** `template<typename T, typename REFCOUNTER = AtomicRefCount> Pointer& decaf::lang::Pointer< T, REFCOUNTER >::operator= (const Pointer< T, REFCOUNTER > & right) throw () [inline]`

Assigns the value of *right* to this **Pointer** (p. 2497) and increments the reference Count.

**Parameters:**

*right* - **Pointer** (p. 2497) on the right hand side of an operator= call to this.

- 6.514.4.11** `template<typename T, typename REFCOUNTER = AtomicRefCount> template<typename T1, typename R1 > bool decaf::lang::Pointer< T, REFCOUNTER >::operator== (const Pointer< T1, R1 > & right) const [inline]`
- 6.514.4.12** `template<typename T, typename REFCOUNTER = AtomicRefCount> T* decaf::lang::Pointer< T, REFCOUNTER >::release () [inline]`

Releases the **Pointer** (p. 2497) held and resets the internal pointer value to Null. This method is not guaranteed to be safe if the **Pointer** (p. 2497) is held by more than one object or this method is called from more than one thread.

**Parameters:**

*value* - The new value to contain.

**Returns:**

The pointer instance that was held by this **Pointer** (p. 2497) object, the pointer is no longer owned by this **Pointer** (p. 2497) and won't be freed when this **Pointer** (p. 2497) goes out of scope.

Referenced by `decaf::lang::Pointer< TransactionId >::Pointer()`.

- 6.514.4.13** `template<typename T, typename REFCOUNTER = AtomicRefCount> void decaf::lang::Pointer< T, REFCOUNTER >::reset (T * value) [inline]`

Resets the **Pointer** (p. 2497) to hold the new value. Before the new value is stored reset checks if the old value should be destroyed and if so calls delete. Call reset with a value of NULL is supported and acts to set this **Pointer** (p. 2497) to a NULL pointer.

**Parameters:**

*value* - The new value to contain.

**6.514.4.14** `template<typename T, typename REFCOUNTER = AtomicRefCount> template<typename T1 > Pointer<T1, CounterType> decaf::lang::Pointer< T, REFCOUNTER >::staticCast () const [inline]`

**6.514.4.15** `template<typename T, typename REFCOUNTER = AtomicRefCount> void decaf::lang::Pointer< T, REFCOUNTER >::swap (Pointer< T, REFCOUNTER > & value) throw () [inline]`

**Exception** (p.1574) Safe Swap Function.

**Parameters:**

*value* - the value to swap with this.

Referenced by `decaf::lang::Pointer< TransactionId >::operator=()`, and `decaf::lang::Pointer< TransactionId >::swap()`.

**6.514.5 Friends And Related Function Documentation**

**6.514.5.1** `template<typename T, typename REFCOUNTER = AtomicRefCount> bool operator!= (const T * left, const Pointer< T, REFCOUNTER > & right) [friend]`

**6.514.5.2** `template<typename T, typename REFCOUNTER = AtomicRefCount> bool operator!= (const Pointer< T, REFCOUNTER > & left, const T * right) [friend]`

**6.514.5.3** `template<typename T, typename REFCOUNTER = AtomicRefCount> bool operator== (const T * left, const Pointer< T, REFCOUNTER > & right) [friend]`

**6.514.5.4** `template<typename T, typename REFCOUNTER = AtomicRefCount> bool operator== (const Pointer< T, REFCOUNTER > & left, const T * right) [friend]`

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Pointer.h`

## 6.515 decaf::lang::PointerComparator< T, R > Class Template Reference

This implementation of Comparator is designed to allows objects in a Collection to be sorted or tested for equality based on the value of the Object being Pointed to and not the value of the contained pointer in the **Pointer** (p. 2497) instance.

#include <src/main/decaf/lang/Pointer.h> Inheritance diagram for decaf::lang::PointerComparator< T, R >:

### Public Member Functions

- virtual bool **operator()** (const **Pointer**< T, R > &left, const **Pointer**< T, R > &right) const
- virtual int **compare** (const **Pointer**< T, R > &left, const **Pointer**< T, R > &right) const

### 6.515.1 Detailed Description

template<typename T, typename R = AtomicRefCounter> class decaf::lang::PointerComparator< T, R >

This implementation of Comparator is designed to allows objects in a Collection to be sorted or tested for equality based on the value of the Object being Pointed to and not the value of the contained pointer in the **Pointer** (p. 2497) instance. This can be useful in the case where a series of values in a Collection is more efficiently accessed in the Objects Natural Order and not the underlying pointers location in memory.

Also this allows **Pointer** (p. 2497) objects that Point to different instances of the same type to be compared based on the comparison of the object itself and not just the value of the pointer.

### 6.515.2 Member Function Documentation

**6.515.2.1** template<typename T , typename R = AtomicRefCounter> virtual int decaf::lang::PointerComparator< T, R >::compare (const **Pointer**< T, R > & *left*, const **Pointer**< T, R > & *right*) const [inline, virtual]

**6.515.2.2** template<typename T , typename R = AtomicRefCounter> virtual bool decaf::lang::PointerComparator< T, R >::operator() (const **Pointer**< T, R > & *left*, const **Pointer**< T, R > & *right*) const [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**Pointer.h**

## 6.516 activemq::cmsutil::PooledSession Class Reference

A pooled session object that wraps around a delegate session.

#include <src/main/activemq/cmsutil/PooledSession.h> Inheritance diagram for activemq::cmsutil::PooledSession:

### Public Member Functions

- **PooledSession** (SessionPool \*pool, cms::Session \*session)
- virtual ~**PooledSession** ()  
*Does nothing.*
- virtual cms::Session \* **getSession** ()  
*Returns a non-constant reference to the internal session object.*
- virtual const cms::Session \* **getSession** () const  
*Returns a constant reference to the internal session object.*
- virtual void **close** () throw ( cms::CMSEException )  
*Returns this session back to the pool, but does not close or destroy the internal session object.*
- virtual void **commit** () throw ( cms::CMSEException )  
*Commits all messages done in this transaction and releases any locks currently held.*
- virtual void **rollback** () throw ( cms::CMSEException )  
*Rolls back all messages done in this transaction and releases any locks currently held.*
- virtual void **recover** () throw ( cms::CMSEException )  
*Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message.*
- virtual cms::MessageConsumer \* **createConsumer** (const cms::Destination \*destination) throw ( cms::CMSEException )  
*Creates a MessageConsumer for the specified destination.*
- virtual cms::MessageConsumer \* **createConsumer** (const cms::Destination \*destination, const std::string &selector) throw ( cms::CMSEException )  
*Creates a MessageConsumer for the specified destination, using a message selector.*
- virtual cms::MessageConsumer \* **createConsumer** (const cms::Destination \*destination, const std::string &selector, bool noLocal) throw ( cms::CMSEException )  
*Creates a MessageConsumer for the specified destination, using a message selector.*
- virtual cms::MessageConsumer \* **createDurableConsumer** (const cms::Topic \*destination, const std::string &name, const std::string &selector, bool noLocal=false) throw ( cms::CMSEException )  
*Creates a durable subscriber to the specified topic, using a Message selector.*

- virtual **cms::MessageConsumer** \* **createCachedConsumer** (const **cms::Destination** \*destination, const std::string &selector, bool noLocal) throw ( cms::CMSEException )  
*First checks the internal consumer cache and creates one if none exist for the given destination, selector, noLocal.*
- virtual **cms::MessageProducer** \* **createProducer** (const **cms::Destination** \*destination) throw ( cms::CMSEException )  
*Creates a MessageProducer to send messages to the specified destination.*
- virtual **cms::MessageProducer** \* **createCachedProducer** (const **cms::Destination** \*destination) throw ( cms::CMSEException )  
*First checks the internal producer cache and creates one if none exist for the given destination.*
- virtual **cms::QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue) throw ( cms::CMSEException )  
*Creates a new QueueBrowser to peek at Messages on the given Queue.*
- virtual **cms::QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue, const std::string &selector) throw ( cms::CMSEException )  
*Creates a new QueueBrowser to peek at Messages on the given Queue.*
- virtual **cms::Queue** \* **createQueue** (const std::string &queueName) throw ( cms::CMSEException )  
*Creates a queue identity given a Queue name.*
- virtual **cms::Topic** \* **createTopic** (const std::string &topicName) throw ( cms::CMSEException )  
*Creates a topic identity given a Queue name.*
- virtual **cms::TemporaryQueue** \* **createTemporaryQueue** () throw ( cms::CMSEException )  
*Creates a TemporaryQueue object.*
- virtual **cms::TemporaryTopic** \* **createTemporaryTopic** () throw ( cms::CMSEException )  
*Creates a TemporaryTopic object.*
- virtual **cms::Message** \* **createMessage** () throw ( cms::CMSEException )  
*Creates a new Message.*
- virtual **cms::BytesMessage** \* **createBytesMessage** () throw ( cms::CMSEException )  
*Creates a BytesMessage.*
- virtual **cms::BytesMessage** \* **createBytesMessage** (const unsigned char \*bytes, std::size\_t bytesSize) throw ( cms::CMSEException )  
*Creates a BytesMessage and sets the payload to the passed value.*
- virtual **cms::StreamMessage** \* **createStreamMessage** () throw ( cms::CMSEException )  
*Creates a new StreamMessage.*

- virtual **cms::TextMessage** \* **createTextMessage** () throw ( cms::CMSEException )  
*Creates a new TextMessage.*
- virtual **cms::TextMessage** \* **createTextMessage** (const std::string &text) throw ( cms::CMSEException )  
*Creates a new TextMessage and set the text to the value given.*
- virtual **cms::MapMessage** \* **createMapMessage** () throw ( cms::CMSEException )  
*Creates a new MapMessage.*
- virtual **cms::Session::AcknowledgeMode** **getAcknowledgeMode** () const throw ( cms::CMSEException )  
*Returns the acknowledgment mode of the session.*
- virtual bool **isTransacted** () const throw ( cms::CMSEException )  
*Gets if the Sessions is a Transacted Session.*
- virtual void **unsubscribe** (const std::string &name) throw ( cms::CMSEException )  
*Unsubscribes a durable subscription that has been created by a client.*

### 6.516.1 Detailed Description

A pooled session object that wraps around a delegate session. Calls to close this session only result in giving the session back to the pool.

### 6.516.2 Constructor & Destructor Documentation

**6.516.2.1** **activemq::cmsutil::PooledSession::PooledSession** (SessionPool \* *pool*, cms::Session \* *session*)

**6.516.2.2** **virtual activemq::cmsutil::PooledSession::~~PooledSession** () [virtual]

Does nothing.

### 6.516.3 Member Function Documentation

**6.516.3.1** **virtual void activemq::cmsutil::PooledSession::close** () throw ( cms::CMSEException ) [virtual]

Returns this session back to the pool, but does not close or destroy the internal session object. Implements **cms::Session** (p. 2842).

**6.516.3.2** **virtual void activemq::cmsutil::PooledSession::commit** () throw ( cms::CMSEException ) [inline, virtual]

Commits all messages done in this transaction and releases any locks currently held.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*IllegalStateException* - if the method is not called by a transacted session.

Implements **cms::Session** (p. 2843).

References cms::Session::commit().

**6.516.3.3** `virtual cms::QueueBrowser* activemq::cmsutil::PooledSession::createBrowser (const cms::Queue * queue, const std::string & selector) throw ( cms::CMSEException )` [virtual]

Creates a new QueueBrowser to peek at Messages on the given Queue.

**Parameters:**

*queue* the Queue to browse

*selector* the Message selector to filter which messages are browsed.

**Returns:**

New QueueBrowser that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if the destination given is invalid.

Implements **cms::Session** (p. 2843).

**6.516.3.4** `virtual cms::QueueBrowser* activemq::cmsutil::PooledSession::createBrowser (const cms::Queue * queue) throw ( cms::CMSEException )` [virtual]

Creates a new QueueBrowser to peek at Messages on the given Queue.

**Parameters:**

*queue* the Queue to browse

**Returns:**

New QueueBrowser that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if the destination given is invalid.

Implements **cms::Session** (p. 2843).



**6.516.3.5** `virtual cms::BytesMessage* activemq::cmsutil::PooledSession::createBytesMessage (const unsigned char * bytes, std::size_t bytesSize) throw ( cms::CMSEException) [inline, virtual]`

Creates a BytesMessage and sets the payload to the passed value.

**Parameters:**

*bytes* an array of bytes to set in the message

*bytesSize* the size of the bytes array, or number of bytes to use

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2844).

References cms::Session::createBytesMessage().

**6.516.3.6** `virtual cms::BytesMessage* activemq::cmsutil::PooledSession::createBytesMessage () throw ( cms::CMSEException) [inline, virtual]`

Creates a BytesMessage.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2844).

References cms::Session::createBytesMessage().

**6.516.3.7** `virtual cms::MessageConsumer* activemq::cmsutil::PooledSession::createCachedConsumer (const cms::Destination * destination, const std::string & selector, bool noLocal) throw ( cms::CMSEException ) [virtual]`

First checks the internal consumer cache and creates one if none exist for the given destination, selector, noLocal. If created, the consumer is added to the pool's lifecycle manager.

**Parameters:**

*destination* the destination to receive on

*selector* the selector to use

*noLocal* whether or not to receive messages from the same connection

**Returns:**

the consumer resource

**Exceptions:**

*cms::CMSEException* (p. 1031) if something goes wrong.

**6.516.3.8** `virtual cms::MessageProducer* activemq::cmsutil::PooledSession::createCachedProducer (const cms::Destination * destination) throw ( cms::CMSEException )` [virtual]

First checks the internal producer cache and creates one if none exist for the given destination. If created, the producer is added to the pool's lifecycle manager.

**Parameters:**

*destination* the destination to send on

**Returns:**

the producer resource

**Exceptions:**

*cms::CMSEException* (p. 1031) if something goes wrong.

**6.516.3.9** `virtual cms::MessageConsumer* activemq::cmsutil::PooledSession::createConsumer (const cms::Destination * destination, const std::string & selector, bool noLocal) throw ( cms::CMSEException )` [inline, virtual]

Creates a MessageConsumer for the specified destination, using a message selector.

**Parameters:**

*destination* the Destination that this consumer receiving messages for.

*selector* the Message Selector to use

*noLocal* if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.

**Returns:**

pointer to a new MessageConsumer that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if an invalid destination is specified.

*InvalidSelectorException* - if the message selector is invalid.

Implements **cms::Session** (p. 2844).

References `cms::Session::createConsumer()`.

**6.516.3.10** `virtual cms::MessageConsumer* activemq::cmsutil::PooledSession::createConsumer (const cms::Destination * destination, const std::string & selector) throw ( cms::CMSEException )` [inline, virtual]

Creates a MessageConsumer for the specified destination, using a message selector.

**Parameters:**

*destination* the Destination that this consumer receiving messages for.

*selector* the Message Selector to use

**Returns:**

pointer to a new MessageConsumer that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if an invalid destination is specified.

*InvalidSelectorException* - if the message selector is invalid.

Implements **cms::Session** (p. 2845).

References cms::Session::createConsumer().

```
6.516.3.11 virtual cms::MessageConsumer* activemq::cmsutil::PooledSession::createConsumer (const
cms::Destination * destination) throw ( cms::CMSEException ) [inline,
virtual]
```

Creates a MessageConsumer for the specified destination.

**Parameters:**

*destination* the Destination that this consumer receiving messages for.

**Returns:**

pointer to a new MessageConsumer that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if an invalid destination is specified.

Implements **cms::Session** (p. 2845).

References cms::Session::createConsumer().

```
6.516.3.12 virtual cms::MessageConsumer* activemq::cmsutil::PooledSession::createDurableConsumer
(const cms::Topic * destination, const std::string & name,
const std::string & selector, bool noLocal = false) throw (
cms::CMSEException ) [inline, virtual]
```

Creates a durable subscriber to the specified topic, using a Message selector. Sessions that create durable consumers must use the same client Id as was used the last time the subscription was created in order to receive all messages that were delivered while the client was offline.

**Parameters:**

*destination* the topic to subscribe to

***name*** The name used to identify the subscription

***selector*** the Message Selector to use

***noLocal*** if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.

#### Returns:

pointer to a new durable MessageConsumer that is owned by the caller ( caller deletes )

#### Exceptions:

***CMSEException*** - If an internal error occurs.

***InvalidDestinationException*** - if an invalid destination is specified.

***InvalidSelectorException*** - if the message selector is invalid.

Implements **cms::Session** (p. 2846).

References cms::Session::createDurableConsumer().

**6.516.3.13** `virtual cms::MapMessage* activemq::cmsutil::PooledSession::createMapMessage ()  
throw ( cms::CMSEException ) [inline, virtual]`

Creates a new MapMessage.

#### Exceptions:

***CMSEException*** - If an internal error occurs.

Implements **cms::Session** (p. 2846).

References cms::Session::createMapMessage().

**6.516.3.14** `virtual cms::Message* activemq::cmsutil::PooledSession::createMessage  
( ) throw ( cms::CMSEException ) [inline, virtual]`

Creates a new Message.

#### Exceptions:

***CMSEException*** - If an internal error occurs.

Implements **cms::Session** (p. 2847).

References cms::Session::createMessage().

**6.516.3.15** `virtual cms::MessageProducer* activemq::cmsutil::PooledSession::createProducer (const  
cms::Destination * destination) throw ( cms::CMSEException ) [inline,  
virtual]`

Creates a MessageProducer to send messages to the specified destination.

**Parameters:**

*destination* the Destination to send on

**Returns:**

New MessageProducer that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

*InvalidDestinationException* - if an invalid destination is specified.

Implements **cms::Session** (p. 2847).

References cms::Session::createProducer().

**6.516.3.16** `virtual cms::Queue* activemq::cmsutil::PooledSession::createQueue  
(const std::string & queueName) throw ( cms::CMSEException )  
[inline, virtual]`

Creates a queue identity given a Queue name.

**Parameters:**

*queueName* the name of the new Queue

**Returns:**

new Queue pointer that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2847).

References cms::Session::createQueue().

**6.516.3.17** `virtual cms::StreamMessage* ac-  
tivemq::cmsutil::PooledSession::createStreamMessage ()  
throw ( cms::CMSEException ) [inline, virtual]`

Creates a new StreamMessage.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2848).

References cms::Session::createStreamMessage().

**6.516.3.18** `virtual cms::TemporaryQueue* activemq::cmsutil::PooledSession::createTemporaryQueue ()  
throw ( cms::CMSException ) [inline, virtual]`

Creates a TemporaryQueue object.

**Returns:**

new TemporaryQueue pointer that is owned by the caller.

**Exceptions:**

*CMSException* - If an internal error occurs.

Implements **cms::Session** (p. 2848).

References cms::Session::createTemporaryQueue().

**6.516.3.19** `virtual cms::TemporaryTopic* activemq::cmsutil::PooledSession::createTemporaryTopic ()  
throw ( cms::CMSException ) [inline, virtual]`

Creates a TemporaryTopic object.

**Exceptions:**

*CMSException* - If an internal error occurs.

Implements **cms::Session** (p. 2848).

References cms::Session::createTemporaryTopic().

**6.516.3.20** `virtual cms::TextMessage* activemq::cmsutil::PooledSession::createTextMessage (const  
std::string & text) throw ( cms::CMSException ) [inline, virtual]`

Creates a new TextMessage and set the text to the value given.

**Parameters:**

*text* the initial text for the message

**Exceptions:**

*CMSException* - If an internal error occurs.

Implements **cms::Session** (p. 2848).

References cms::Session::createTextMessage().

**6.516.3.21** `virtual cms::TextMessage* activemq::cmsutil::PooledSession::createTextMessage ()  
throw ( cms::CMSException ) [inline, virtual]`

Creates a new TextMessage.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2849).

References cms::Session::createTextMessage().

**6.516.3.22** `virtual cms::Topic* activemq::cmsutil::PooledSession::createTopic (const std::string & topicName) throw ( cms::CMSEException ) [inline, virtual]`

Creates a topic identity given a Queue name.

**Parameters:**

*topicName* the name of the new Topic

**Returns:**

new Topic pointer that is owned by the caller.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2849).

References cms::Session::createTopic().

**6.516.3.23** `virtual cms::Session::AcknowledgeMode activemq::cmsutil::PooledSession::getAcknowledgeMode () const throw ( cms::CMSEException ) [inline, virtual]`

Returns the acknowledgment mode of the session.

**Returns:**

the Sessions Acknowledge Mode

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements **cms::Session** (p. 2849).

References cms::Session::getAcknowledgeMode().

**6.516.3.24** `virtual const cms::Session* activemq::cmsutil::PooledSession::getSession () const [inline, virtual]`

Returns a constant reference to the internal session object.

**Returns:**

the session object.

**6.516.3.25** `virtual cms::Session* activemq::cmsutil::PooledSession::getSession ()`  
[inline, virtual]

Returns a non-constant reference to the internal session object.

**Returns:**

the session object.

**6.516.3.26** `virtual bool activemq::cmsutil::PooledSession::isTransacted () const`  
`throw ( cms::CMSEException )` [inline, virtual]

Gets if the Sessions is a Transacted Session.

**Returns:**

transacted true - false.

**Exceptions:**

*CMSEException* - If an internal error occurs.

Implements `cms::Session` (p. 2850).

References `cms::Session::isTransacted()`.

**6.516.3.27** `virtual void activemq::cmsutil::PooledSession::recover () throw (`  
`cms::CMSEException )` [inline, virtual]

Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message. All consumers deliver messages in a serial order. Acknowledging a received message automatically acknowledges all messages that have been delivered to the client.

Restarting a session causes it to take the following actions:

- Stop message delivery
- Mark all messages that might have been delivered but not acknowledged as "redelivered"
- Restart the delivery sequence including all unacknowledged messages that had been previously delivered. Redelivered messages do not have to be delivered in exactly their original delivery order.

**Exceptions:**

*CMSEException* - if the CMS provider fails to stop and restart message delivery due to some internal error.

*IllegalStateException* - if the method is called by a transacted session.

Implements `cms::Session` (p. 2850).

References `cms::Session::recover()`.



**6.516.3.28** `virtual void activemq::cmsutil::PooledSession::rollback () throw ( cms::CMSException ) [inline, virtual]`

Rolls back all messages done in this transaction and releases any locks currently held.

**Exceptions:**

*CMSException* - If an internal error occurs.

*IllegalStateException* - if the method is not called by a transacted session.

Implements **cms::Session** (p. 2850).

References `cms::Session::rollback()`.

**6.516.3.29** `virtual void activemq::cmsutil::PooledSession::unsubscribe (const std::string & name) throw ( cms::CMSException ) [inline, virtual]`

Unsubscribes a durable subscription that has been created by a client. This method deletes the state being maintained on behalf of the subscriber by its provider. It is erroneous for a client to delete a durable subscription while there is an active MessageConsumer or Subscriber for the subscription, or while a consumed message is part of a pending transaction or has not been acknowledged in the session.

**Parameters:**

*name* The name used to identify this subscription

**Exceptions:**

*CMSException* - If an internal error occurs.

Implements **cms::Session** (p. 2851).

References `cms::Session::unsubscribe()`.

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/PooledSession.h`

## 6.517 decaf::util::concurrent::PooledThread Class Reference

```
#include <src/main/decaf/util/concurrent/PooledThread.h>
```

### Public Member Functions

- **PooledThread** (**ThreadPool** \*pool)  
*Constructor.*
- virtual **~PooledThread** ()
- virtual void **run** ()  
*Run Method for this object waits for something to be enqueued on the **ThreadPool** (p. 3175) and then grabs it and calls its run method.*
- virtual void **stop** () throw ( lang::Exception )  
*Stops the Thread, thread will complete its task if currently running one, and then die.*
- virtual bool **isBusy** ()  
*Checks to see if the thread is busy, if busy it means that this thread has taken a task from the ThreadPool's queue and is processing it.*
- virtual void **setPooledThreadListener** (**PooledThreadListener** \*listener)  
*Adds a listener to this **PooledThread** (p. 2518) to be notified when this thread starts and completes a task.*
- virtual **PooledThreadListener** \* **getPooledThreadListener** ()  
*Removes a listener for this **PooledThread** (p. 2518) to be notified when this thread starts and completes a task.*

### 6.517.1 Constructor & Destructor Documentation

#### 6.517.1.1 decaf::util::concurrent::PooledThread::PooledThread (**ThreadPool** \* pool)

Constructor.

#### Parameters:

*pool* the parant **ThreadPool** (p. 3175) object

#### 6.517.1.2 virtual decaf::util::concurrent::PooledThread::~~PooledThread () [virtual]

### 6.517.2 Member Function Documentation

#### 6.517.2.1 virtual **PooledThreadListener**\* decaf::util::concurrent::PooledThread::getPooledThreadListener () [inline, virtual]

Removes a listener for this **PooledThread** (p. 2518) to be notified when this thread starts and completes a task.

**Returns:**

a pointer to this thread's listener or NULL

**6.517.2.2 virtual bool decaf::util::concurrent::PooledThread::isBusy () [inline, virtual]**

Checks to see if the thread is busy, if busy it means that this thread has taken a task from the ThreadPool's queue and is processing it.

**Returns:**

true if the Thread is busy

**6.517.2.3 virtual void decaf::util::concurrent::PooledThread::run () [virtual]**

Run Method for this object waits for something to be enqueued on the **ThreadPool** (p.3175) and then grabs it and calls its run method.

**6.517.2.4 virtual void decaf::util::concurrent::PooledThread::setPooledThreadListener (PooledThreadListener \* *listener*) [inline, virtual]**

Adds a listener to this PooledThread (p.2518) to be notified when this thread starts and completes a task.

**Parameters:**

*listener* the listener to send notifications to.

**6.517.2.5 virtual void decaf::util::concurrent::PooledThread::stop () throw (lang::Exception) [virtual]**

Stops the Thread, thread will complete its task if currently running one, and then die. Does not block.

**Exceptions:**

*Exception*

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**PooledThread.h**

## 6.518 decaf::util::concurrent::PooledThreadListener Class Reference

Abstract Listener Interface for users of `ThreadPool` (p. 3175).

#include <src/main/decaf/util/concurrent/PooledThreadListener.h> Inheritance diagram for `decaf::util::concurrent::PooledThreadListener`:

### Public Member Functions

- virtual `~PooledThreadListener ()`
- virtual void `onTaskStarted (PooledThread *thread)=0`  
*Called by a pooled thread when it is about to begin executing a new task.*
- virtual void `onTaskCompleted (PooledThread *thread)=0`  
*Called by a pooled thread when it has completed a task and is going back to waiting for another task to run.*
- virtual void `onTaskException (PooledThread *thread, lang::Exception &ex)=0`  
*Called by a pooled thread when it has encountered an exception while running a user task, after receiving this notification the callee should assume that the **PooledThread** (p. 2518) is now no longer running.*

### 6.518.1 Detailed Description

Abstract Listener Interface for users of `ThreadPool` (p. 3175). The implementor of this class receives events related to the execution and termination of threads running in the **ThreadPool** (p. 3175).

Since:

1.0

### 6.518.2 Constructor & Destructor Documentation

- 6.518.2.1** virtual  
`decaf::util::concurrent::PooledThreadListener::~~PooledThreadListener ()`  
 [inline, virtual]

### 6.518.3 Member Function Documentation

- 6.518.3.1** virtual void `decaf::util::concurrent::PooledThreadListener::onTaskCompleted (PooledThread * thread)` [pure virtual]

Called by a pooled thread when it has completed a task and is going back to waiting for another task to run.

**Parameters:**

*thread* - Pointer the the Pooled Thread that is making this call.

Implemented in **decaf::util::concurrent::ThreadPool** (p. 3178).

**6.518.3.2 virtual void decaf::util::concurrent::PooledThreadListener::onTaskException (PooledThread \* *thread*, lang::Exception & *ex*) [pure virtual]**

Called by a pooled thread when it has encountered an exception while running a user task, after receiving this notification the callee should assume that the **PooledThread** (p.2518) is now no longer running.

**Parameters:**

*thread* - Pointer to the Pooled Thread that is making this call

*ex* - The Exception that occurred.

Implemented in **decaf::util::concurrent::ThreadPool** (p. 3178).

**6.518.3.3 virtual void decaf::util::concurrent::PooledThreadListener::onTaskStarted (PooledThread \* *thread*) [pure virtual]**

Called by a pooled thread when it is about to begin executing a new task.

**Parameters:**

*thread* - Pointer to the Pooled Thread that is making this call

Implemented in **decaf::util::concurrent::ThreadPool** (p. 3179).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**PooledThreadListener.h**

## 6.519 decaf::net::PortUnreachableException Class Reference

#include <src/main/decaf/net/PortUnreachableException.h> Inheritance diagram for decaf::net::PortUnreachableException:

### Public Member Functions

- **PortUnreachableException** () throw ()  
*Default Constructor.*
- **PortUnreachableException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **PortUnreachableException** (const **PortUnreachableException** &ex) throw ()  
*Copy Constructor.*
- **PortUnreachableException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **PortUnreachableException** (const std::exception \*cause) throw ()  
*Constructor.*
- **PortUnreachableException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **PortUnreachableException** \* clone () const  
*Clones this exception.*
- virtual ~**PortUnreachableException** () throw ()

### 6.519.1 Constructor & Destructor Documentation

#### 6.519.1.1 decaf::net::PortUnreachableException::PortUnreachableException () throw () [inline]

Default Constructor.

#### 6.519.1.2 decaf::net::PortUnreachableException::PortUnreachableException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

**6.519.1.3 decaf::net::PortUnreachableException::PortUnreachableException (const PortUnreachableException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.519.1.4 decaf::net::PortUnreachableException::PortUnreachableException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.519.1.5 decaf::net::PortUnreachableException::PortUnreachableException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.519.1.6 decaf::net::PortUnreachableException::PortUnreachableException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.519.1.7**   **virtual**  
**decaf::net::PortUnreachableException::~~PortUnreachableException ()**  
**throw ()**   [inline, virtual]

## **6.519.2   Member Function Documentation**

**6.519.2.1**   **virtual PortUnreachableException\* de-**  
**caf::net::PortUnreachableException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::net::SocketException** (p. 2973).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/PortUnreachableException.h`



## 6.520 activemq::util::PrimitiveList Class Reference

List of primitives.

#include <src/main/activemq/util/PrimitiveList.h> Inheritance diagram for activemq::util::PrimitiveList:

### Public Member Functions

- **PrimitiveList** ()  
*Default Constructor, creates an Empty list.*
- virtual **~PrimitiveList** ()
- **PrimitiveList** (const **decaf::util::List**< **PrimitiveValueNode** > &src)  
*Copy Constructor.*
- **PrimitiveList** (const **PrimitiveList** &src)  
*Copy Constructor.*
- std::string **toString** () const  
*Converts the contents into a formatted string that can be output in a Log File or other debugging tool.*
- virtual bool **getBool** (std::size\_t index) const throw (decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Boolean value at the specified index.*
- virtual void **setBool** (std::size\_t index, bool value) throw (decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual unsigned char **getByte** (std::size\_t index) const throw (decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Byte value at the specified index.*
- virtual void **setByte** (std::size\_t index, unsigned char value) throw (decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual char **getChar** (std::size\_t index) const throw (decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Character value at the specified index.*

- virtual void **setChar** (std::size\_t index, char value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual short **getShort** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Short value at the specified index.*
- virtual void **setShort** (std::size\_t index, short value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual int **getInt** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Integer value at the specified index.*
- virtual void **setInt** (std::size\_t index, int value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual long long **getLong** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Long value at the specified index.*
- virtual void **setLong** (std::size\_t index, long long value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual float **getFloat** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Float value at the specified index.*
- virtual void **setFloat** (std::size\_t index, float value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*
- virtual double **getDouble** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )

*Gets the Double value at the specified index.*

- virtual void **setDouble** (std::size\_t index, double value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*

- virtual std::string **getString** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )

*Gets the String value at the specified index.*

- virtual void **setString** (std::size\_t index, const std::string &value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*

- virtual std::vector< unsigned char > **getByteArray** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException )

*Gets the Byte Array value at the specified index.*

- virtual void **setByteArray** (std::size\_t index, const std::vector< unsigned char > &value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.*

## 6.520.1 Detailed Description

List of primitives.

## 6.520.2 Constructor & Destructor Documentation

### 6.520.2.1 activemq::util::PrimitiveList::PrimitiveList ()

Default Constructor, creates an Empty list.

### 6.520.2.2 virtual activemq::util::PrimitiveList::~~PrimitiveList () [virtual]

### 6.520.2.3 activemq::util::PrimitiveList::PrimitiveList (const decaf::util::List< PrimitiveValueNode > & src)

Copy Constructor.

#### Parameters:

*src* - the Decaf List of PrimitiveNodeValues to copy

#### 6.520.2.4 `activemq::util::PrimitiveList::PrimitiveList (const PrimitiveList & src)`

Copy Constructor.

##### Parameters:

*src* - the `PrimitiveList` (p. 2525) to copy

### 6.520.3 Member Function Documentation

#### 6.520.3.1 `virtual bool activemq::util::PrimitiveList::getBool (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Boolean value at the specified index.

##### Parameters:

*index* - index to get value from

##### Returns:

value contained at the given index

##### Exceptions:

*IndexOutOfBoundsException* if index is > `size()` (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

#### 6.520.3.2 `virtual unsigned char activemq::util::PrimitiveList::getBytes (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Byte value at the specified index.

##### Parameters:

*index* - index to get value from

##### Returns:

value contained at the given index

##### Exceptions:

*IndexOutOfBoundsException* if index is > `size()` (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.3** virtual std::vector<unsigned char> activemq::util::PrimitiveList::getByteArray (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the Byte Array value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

*IndexOutOfBoundsException* if index is > size() (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.4** virtual char activemq::util::PrimitiveList::getChar (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the Character value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

*IndexOutOfBoundsException* if index is > size() (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.5** virtual double activemq::util::PrimitiveList::getDouble (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the Double value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

***IndexOutOfBoundsException*** if index is  $> \text{size}()$  (p. 3028)

***UnsupportedOperationException*** if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.6**    `virtual float activemq::util::PrimitiveList::getFloat (std::size_t index)  
const throw ( decaf::lang::exceptions::IndexOutOfBoundsException,  
decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Float value at the specified index.

**Parameters:**

***index*** - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

***IndexOutOfBoundsException*** if index is  $> \text{size}()$  (p. 3028)

***UnsupportedOperationException*** if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.7**    `virtual int activemq::util::PrimitiveList::getInt (std::size_t index)  
const throw ( decaf::lang::exceptions::IndexOutOfBoundsException,  
decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Integer value at the specified index.

**Parameters:**

***index*** - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

***IndexOutOfBoundsException*** if index is  $> \text{size}()$  (p. 3028)

***UnsupportedOperationException*** if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.8**    `virtual long long activemq::util::PrimitiveList::getLong (std::size_t index)  
const throw ( decaf::lang::exceptions::IndexOutOfBoundsException,  
decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Long value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

*IndexOutOfBoundsException* if index is > `size()` (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.9** virtual short activemq::util::PrimitiveList::getShort (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the Short value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

*IndexOutOfBoundsException* if index is > `size()` (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.10** virtual std::string activemq::util::PrimitiveList::getString (std::size\_t *index*) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the String value at the specified index.

**Parameters:**

*index* - index to get value from

**Returns:**

value contained at the given index

**Exceptions:**

*IndexOutOfBoundsException* if index is > `size()` (p. 3028)

*UnsupportedOperationException* if the type at index is not of the type that this method is to return or can convert to.

**6.520.3.11** `virtual void activemq::util::PrimitiveList::setBool (std::size_t index,  
bool value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException  
)` [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.12** `virtual void activemq::util::PrimitiveList::setByte  
(std::size_t index, unsigned char value) throw (  
decaf::lang::exceptions::IndexOutOfBoundsException )` [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.13** `virtual void activemq::util::PrimitiveList::setByteArray (std::size_t  
index, const std::vector< unsigned char > & value) throw (  
decaf::lang::exceptions::IndexOutOfBoundsException )` [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).



**6.520.3.14**    **virtual void activemq::util::PrimitiveList::setChar (std::size\_t *index*, char *value*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )** [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.15**    **virtual void activemq::util::PrimitiveList::setDouble (std::size\_t *index*, double *value*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )** [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.16**    **virtual void activemq::util::PrimitiveList::setFloat (std::size\_t *index*, float *value*) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )** [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.17** `virtual void activemq::util::PrimitiveList::setInt (std::size_t index, int value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.18** `virtual void activemq::util::PrimitiveList::setLong (std::size_t index, long long value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )` [virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.19** `virtual void activemq::util::PrimitiveList::setShort (std::size_t index, short value) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )`  
[virtual]

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if index > size() (p. 3028).

**6.520.3.20**    `virtual void activemq::util::PrimitiveList::setString  
                  (std::size_t index, const std::string & value) throw (  
                  decaf::lang::exceptions::IndexOutOfBoundsException ) [virtual]`

Sets the value at the given index to the new value specified, this method overwrites any data that was previously at the index given, but does not insert a new element if the index is greater than the size of the list.

**Parameters:**

*index* - location to set in the list

*value* - the new value to assign to the element at index

**Exceptions:**

*IndexOutOfBoundsException* if `index > size()` (p. 3028).

**6.520.3.21**    `std::string activemq::util::PrimitiveList::toString () const`

Converts the contents into a formatted string that can be output in a Log File or other debugging tool.

**Returns:**

formatted String of all elements in the list.

The documentation for this class was generated from the following file:

- `src/main/activemq/util/PrimitiveList.h`

## 6.521 activemq::util::PrimitiveMap Class Reference

Map of named primitives.

#include <src/main/activemq/util/PrimitiveMap.h> Inheritance diagram for activemq::util::PrimitiveMap:

### Public Member Functions

- **PrimitiveMap** ()  
*Default Constructor, creates an empty map.*
- virtual **~PrimitiveMap** ()
- **PrimitiveMap** (const **decaf::util::Map**< std::string, **PrimitiveValueNode** > &source)  
*Copy Constructor.*
- **PrimitiveMap** (const **PrimitiveMap** &source)  
*Copy Constructor.*
- std::string **toString** () const  
*Converts the contents into a formatted string that can be output in a Log File or other debugging tool.*
- virtual bool **getBool** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Boolean value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*
- virtual void **setBool** (const std::string &key, bool value)  
*Sets the value at key to the specified type.*
- virtual unsigned char **getByte** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Byte value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*
- virtual void **setByte** (const std::string &key, unsigned char value)  
*Sets the value at key to the specified type.*
- virtual char **getChar** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )  
*Gets the Character value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*
- virtual void **setChar** (const std::string &key, char value)

*Sets the value at key to the specified type.*

- virtual short **getShort** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, de-  
cafe::lang::exceptions::UnsupportedOperationException )

*Gets the Short value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setShort** (const std::string &key, short value)

*Sets the value at key to the specified type.*

- virtual int **getInt** (const std::string &key) const throw ( de-  
cafe::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )

*Gets the Integer value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setInt** (const std::string &key, int value)

*Sets the value at key to the specified type.*

- virtual long long **getLong** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, de-  
cafe::lang::exceptions::UnsupportedOperationException )

*Gets the Long value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setLong** (const std::string &key, long long value)

*Sets the value at key to the specified type.*

- virtual float **getFloat** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, de-  
cafe::lang::exceptions::UnsupportedOperationException )

*Gets the Float value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setFloat** (const std::string &key, float value)

*Sets the value at key to the specified type.*

- virtual double **getDouble** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, de-  
cafe::lang::exceptions::UnsupportedOperationException )

*Gets the Double value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setDouble** (const std::string &key, double value)

*Sets the value at key to the specified type.*

- virtual std::string **getString** (const std::string &key) const  
throw ( decaf::lang::exceptions::NoSuchElementException, de-  
cafe::lang::exceptions::UnsupportedOperationException )

*Gets the String value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.*

- virtual void **setString** (const std::string &key, const std::string &value)

*Sets the value at key to the specified type.*

- virtual std::vector< unsigned char > **getByteArray** (const std::string &key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )

*Gets the Byte Array value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type `NoSuchElementException` is thrown.*

- virtual void **setByteArray** (const std::string &key, const std::vector< unsigned char > &value)

*Sets the value at key to the specified type.*

### 6.521.1 Detailed Description

Map of named primitives.

### 6.521.2 Constructor & Destructor Documentation

#### 6.521.2.1 activemq::util::PrimitiveMap::PrimitiveMap ()

Default Constructor, creates an empty map.

#### 6.521.2.2 virtual activemq::util::PrimitiveMap::~~PrimitiveMap () [virtual]

#### 6.521.2.3 activemq::util::PrimitiveMap::PrimitiveMap (const decaf::util::Map< std::string, PrimitiveValueNode > & source)

Copy Constructor.

#### Parameters:

**source** The Decaf Library Map instance whose elements will be copied into this Map.

#### 6.521.2.4 activemq::util::PrimitiveMap::PrimitiveMap (const PrimitiveMap & source)

Copy Constructor.

#### Parameters:

**source** The **PrimitiveMap** (p. 2536) whose elements will be copied into this Map.

### 6.521.3 Member Function Documentation

**6.521.3.1** `virtual bool activemq::util::PrimitiveMap::getBool (const std::string & key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Boolean value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type `NoSuchElementException` is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at key in the type requested.

**Exceptions:**

*NoSuchElementException* if key is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.2** `virtual unsigned char activemq::util::PrimitiveMap::getBytes (const std::string & key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Byte value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type `NoSuchElementException` is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at key in the type requested.

**Exceptions:**

*NoSuchElementException* if key is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.3** `virtual std::vector<unsigned char> activemq::util::PrimitiveMap::getBytesArray (const std::string & key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Byte Array value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type `NoSuchElementException` is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.4** `virtual char activemq::util::PrimitiveMap::getChar (const std::string & key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Character value at the given *key*, if the *key* is not in the map or cannot be returned as the requested value then an exception of type *NoSuchElementException* is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.5** `virtual double activemq::util::PrimitiveMap::getDouble (const std::string & key) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Gets the Double value at the given *key*, if the *key* is not in the map or cannot be returned as the requested value then an exception of type *NoSuchElementException* is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns



**6.521.3.6**    **virtual float activemq::util::PrimitiveMap::getFloat (const std::string & *key*) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )**    [virtual]

Gets the Float value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at key in the type requested.

**Exceptions:**

*NoSuchElementException* if key is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.7**    **virtual int activemq::util::PrimitiveMap::getInt (const std::string & *key*) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )**    [virtual]

Gets the Integer value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at key in the type requested.

**Exceptions:**

*NoSuchElementException* if key is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.8**    **virtual long long activemq::util::PrimitiveMap::getLong (const std::string & *key*) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )**    [virtual]

Gets the Long value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.9** virtual short activemq::util::PrimitiveMap::getShort (const std::string & *key*) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the Short value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.10** virtual std::string activemq::util::PrimitiveMap::getString (const std::string & *key*) const throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]

Gets the String value at the given key, if the key is not in the map or cannot be returned as the requested value then an exception of type NoSuchElementException is thrown.

**Parameters:**

*key* - the location to return the value from.

**Returns:**

the value at *key* in the type requested.

**Exceptions:**

*NoSuchElementException* if *key* is not in the map.

*UnsupportedOperationException* if the value cannot be converted to the type this method returns

**6.521.3.11 virtual void activemq::util::PrimitiveMap::setBool (const std::string & *key*, bool *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.12 virtual void activemq::util::PrimitiveMap::setByte (const std::string & *key*, unsigned char *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.13 virtual void activemq::util::PrimitiveMap::setByteArray (const std::string & *key*, const std::vector< unsigned char > & *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.14 virtual void activemq::util::PrimitiveMap::setChar (const std::string & *key*, char *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.15 virtual void activemq::util::PrimitiveMap::setDouble (const std::string & *key*, double *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.16 virtual void activemq::util::PrimitiveMap::setFloat (const std::string & *key*, float *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.17 virtual void activemq::util::PrimitiveMap::setInt (const std::string & *key*, int *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.18 virtual void activemq::util::PrimitiveMap::setLong (const std::string & *key*, long long *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

**6.521.3.19 virtual void activemq::util::PrimitiveMap::setShort (const std::string & *key*, short *value*) [virtual]**

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

**Parameters:**

*key* - the map key to set or insert.

*value* - the new value to set at the key location.

### 6.521.3.20 virtual void activemq::util::PrimitiveMap::setString (const std::string & *key*, const std::string & *value*) [virtual]

Sets the value at key to the specified type. Overwrites any data that was previously at this key or inserts a new element at key.

#### Parameters:

- key* - the map key to set or insert.
- value* - the new value to set at the key location.

### 6.521.3.21 std::string activemq::util::PrimitiveMap::toString () const

Converts the contents into a formatted string that can be output in a Log File or other debugging tool.

#### Returns:

formatted String of all elements in the map.

The documentation for this class was generated from the following file:

- src/main/activemq/util/**PrimitiveMap.h**

## 6.522 activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller Class Reference

This class wraps the functionality needed to marshal a primitive map to the Openwire Format's expectation of what the map looks like on the wire.

```
#include <src/main/activemq/wireformat/openwire/marshal/PrimitiveTypesMarshaller.h>
```

### Public Member Functions

- **PrimitiveTypesMarshaller** ()
- virtual **~PrimitiveTypesMarshaller** ()

### Static Public Member Functions

- static void **marshal** (const **util::PrimitiveMap** \*map, std::vector< unsigned char > &dest) throw ( decaf::lang::Exception )  
*Static Marshal of a primitive map object.*
- static void **unmarshal** (**util::PrimitiveMap** \*map, const std::vector< unsigned char > &src) throw ( decaf::lang::Exception )  
*Static Map Unmarshaller, takes an array of bytes and returns a new instance of a PrimitiveMap object.*
- static void **marshal** (const **util::PrimitiveList** \*list, std::vector< unsigned char > &dest) throw ( decaf::lang::Exception )  
*Static Marshal of a primitive map object.*
- static void **unmarshal** (**util::PrimitiveList** \*list, const std::vector< unsigned char > &src) throw ( decaf::lang::Exception )  
*Static Map Unmarshaller, takes an array of bytes and returns a new instance of a PrimitiveMap object.*

### Static Protected Member Functions

- static void **marshalPrimitiveMap** (decaf::io::DataOutputStream &dataOut, const decaf::util::Map< std::string, util::PrimitiveValueNode > &map) throw ( decaf::io::IOException )  
*Marshal a Map of Primitives to the given OutputStream, can result in recursive calls to this method if the map contains maps of maps.*
- static void **marshalPrimitiveList** (decaf::io::DataOutputStream &dataOut, const decaf::util::List< util::PrimitiveValueNode > &list) throw ( decaf::io::IOException )  
*Marshal a List of Primitives to the given OutputStream, can result in recursive calls to this method if the list contains lists of lists.*
- static void **marshalPrimitive** (decaf::io::DataOutputStream &dataOut, const util::PrimitiveValueNode &value) throw ( decaf::io::IOException )  
*Used to Marshal the Primitive types out on the Wire.*

- static void **unmarshalPrimitiveMap** (decaf::io::DataInputStream &dataIn, util::PrimitiveMap &map) throw ( decaf::io::IOException )  
*Unmarshals a Map of Primitives from the given InputStream, can result in recursive calls to this method if the map contains maps of maps.*
- static void **unmarshalPrimitiveList** (decaf::io::DataInputStream &dataIn, decaf::util::StIList< util::PrimitiveValueNode > &list) throw ( decaf::io::IOException )  
*Unmarshals a List of Primitives from the given InputStream, can result in recursive calls to this method if the list contains lists of lists.*
- static util::PrimitiveValueNode **unmarshalPrimitive** (decaf::io::DataInputStream &dataIn) throw ( decaf::io::IOException )  
*Unmarshals a Primitive Type from the stream, and returns it as a value Node.*

## 6.522.1 Detailed Description

This class wraps the functionality needed to marshal a primitive map to the Openwire Format's expectation of what the map looks like on the wire.

## 6.522.2 Constructor & Destructor Documentation

- 6.522.2.1** **activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::PrimitiveTypesMarshaller** () [inline]
- 6.522.2.2** **virtual** **activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::~~PrimitiveTypesMarshaller** () [inline, virtual]

## 6.522.3 Member Function Documentation

- 6.522.3.1** static void **activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::marshal** (const util::PrimitiveList \* *list*, std::vector< unsigned char > & *dest*) throw ( decaf::lang::Exception ) [static]

Static Marshal of a primitive map object.

### Parameters:

- list* The list object to Marshal
- dest* Reference to a byte array to house the data

### Exceptions:

*Exception*

```
6.522.3.2 static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::marshal
(const util::PrimitiveMap * map, std::vector< unsigned char > & dest)
throw ( decaf::lang::Exception ) [static]
```

Static Marshal of a primitive map object.

**Parameters:**

*map* Map to Marshal.

*dest* Reference to a byte array to house the data.

**Exceptions:**

*Exception*

```
6.522.3.3 static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::marshalPrimitive
(decaf::io::DataOutputStream & dataOut, const util::PrimitiveValueNode
& value) throw ( decaf::io::IOException ) [static, protected]
```

Used to Marshal the Primitive types out on the Wire.

**Parameters:**

*dataOut* - the DataOutputStream to write to

*value* - the ValueNode to write.

**Exceptions:**

*IOException*

```
6.522.3.4 static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::marshalPrimitiveList
(decaf::io::DataOutputStream & dataOut, const decaf::util::List<
util::PrimitiveValueNode > & list) throw ( decaf::io::IOException )
[static, protected]
```

Marshal a List of Primitives to the given OutputStream, can result in recursive calls to this method if the list contains lists of lists.

**Parameters:**

*dataOut* - the DataOutputStream to write to

*list* - the ValueNode to write.

**Exceptions:**

*IOException*



**6.522.3.5** static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::marshalPrimitiveMap (decaf::io::DataOutputStream & *dataOut*, const decaf::util::Map< std::string, util::PrimitiveValueNode > & *map*) throw ( decaf::io::IOException ) [static, protected]

Marshal a Map of Primitives to the given OutputStream, can result in recursive calls to this method if the map contains maps of maps.

**Parameters:**

*dataOut* - the DataOutputStream to write to  
*map* - the ValueNode to write.

**Exceptions:**

*IOException*

**6.522.3.6** static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::unmarshal (util::PrimitiveList \* *list*, const std::vector< unsigned char > & *src*) throw ( decaf::lang::Exception ) [static]

Static Map Unmarshaler, takes an array of bytes and returns a new instance of a PrimitiveMap object. Caller owns the pointer.

**Parameters:**

*list* The list object to Un-marshal  
*src* Reference to a byte array to read data from.

**Exceptions:**

*Exception*

**6.522.3.7** static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::unmarshal (util::PrimitiveMap \* *map*, const std::vector< unsigned char > & *src*) throw ( decaf::lang::Exception ) [static]

Static Map Unmarshaler, takes an array of bytes and returns a new instance of a PrimitiveMap object. Caller owns the pointer.

**Parameters:**

*map* Map to Unmarshal into  
*src* Reference to a byte array to read data from.

**Exceptions:**

*Exception*

**6.522.3.8** static util::PrimitiveValueNode activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::unmarshalPrimitive (decaf::io::DataInputStream & *dataIn*) throw ( decaf::io::IOException )  
[static, protected]

Unmarshals a Primitive Type from the stream, and returns it as a value Node.

**Parameters:**

*dataIn* - DataInputStream to read from.

**Returns:**

a PrimitiveValueNode containing the data.

**Exceptions:**

*IOException*

**6.522.3.9** static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::unmarshalPrimitiveList (decaf::io::DataInputStream & *dataIn*, decaf::util::StlList< util::PrimitiveValueNode > & *list*) throw ( decaf::io::IOException )  
[static, protected]

Unmarshals a List of Primitives from the given InputStream, can result in recursive calls to this method if the list contains lists of lists.

**Parameters:**

*dataIn* - DataInputStream to read from.

*list* - the ValueNode to write.

**Exceptions:**

*IOException*

**6.522.3.10** static void activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller::unmarshalPrimitiveMap (decaf::io::DataInputStream & *dataIn*, util::PrimitiveMap & *map*)  
throw ( decaf::io::IOException ) [static, protected]

Unmarshals a Map of Primitives from the given InputStream, can result in recursive calls to this method if the map contains maps of maps.

**Parameters:**

*dataIn* - DataInputStream to read from.

*map* - the map to fill with data.

**Exceptions:**

*IOException*

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/**PrimitiveTypesMarshaller.h**

## 6.523 activemq::util::PrimitiveValueNode::PrimitiveValue Union Reference

Define a union type comprised of the various types.

```
#include <src/main/activemq/util/PrimitiveValueNode.h>
```

### Data Fields

- bool **boolValue**
- unsigned char **byteValue**
- char **charValue**
- short **shortValue**
- int **intValue**
- long long **longValue**
- double **doubleValue**
- float **floatValue**
- std::string \* **stringValue**
- std::vector< unsigned char > \* **byteArrayValue**
- decaf::util::List< PrimitiveValueNode > \* **listValue**
- decaf::util::Map< std::string, PrimitiveValueNode > \* **mapValue**

### 6.523.1 Detailed Description

Define a union type comprised of the various types.

## 6.523.2 Field Documentation

- 6.523.2.1 `bool activemq::util::PrimitiveValueNode::PrimitiveValue::boolValue`
- 6.523.2.2 `std::vector<unsigned char>* activemq::util::PrimitiveValueNode::PrimitiveValue::byteArrayValue`
- 6.523.2.3 `unsigned char activemq::util::PrimitiveValueNode::PrimitiveValue::byteValue`
- 6.523.2.4 `char activemq::util::PrimitiveValueNode::PrimitiveValue::charValue`
- 6.523.2.5 `double activemq::util::PrimitiveValueNode::PrimitiveValue::doubleValue`
- 6.523.2.6 `float activemq::util::PrimitiveValueNode::PrimitiveValue::floatValue`
- 6.523.2.7 `int activemq::util::PrimitiveValueNode::PrimitiveValue::intValue`
- 6.523.2.8 `decaf::util::List<PrimitiveValueNode>* activemq::util::PrimitiveValueNode::PrimitiveValue::listValue`
- 6.523.2.9 `long long activemq::util::PrimitiveValueNode::PrimitiveValue::longValue`
- 6.523.2.10 `decaf::util::Map<std::string, PrimitiveValueNode>* activemq::util::PrimitiveValueNode::PrimitiveValue::mapValue`
- 6.523.2.11 `short activemq::util::PrimitiveValueNode::PrimitiveValue::shortValue`
- 6.523.2.12 `std::string* activemq::util::PrimitiveValueNode::PrimitiveValue::stringValue`

The documentation for this union was generated from the following file:

- `src/main/activemq/util/PrimitiveValueNode.h`

## 6.524 activemq::util::PrimitiveValueConverter Class Reference

Class controls the conversion of data contained in a **PrimitiveValueNode** (p.2555) from one type to another.

```
#include <src/main/activemq/util/PrimitiveValueConverter.h>
```

### Public Member Functions

- **PrimitiveValueConverter** ()
- virtual **~PrimitiveValueConverter** ()
- template<typename TO >  
TO **convert** (const **PrimitiveValueNode** &value) const throw ( decaf::lang::exceptions::UnsupportedOperationException )

### 6.524.1 Detailed Description

Class controls the conversion of data contained in a **PrimitiveValueNode** (p.2555) from one type to another. If the conversion is supported then calling the convert method will throw an UnsupportedOperationException to indicate that its not possible to perform the conversion.

This class is used to implement the rules of conversion on CMS Message properties, the following conversion table must be implemented. A value written as the row type can be read in the column type.

	boolean	byte	short	int	long	float	double	String
boolean	X X							
byte		X X X X X						
short			X X X X					
int				X X X X				
long					X X			
float						X X X		
double							X X X	
String								X X X X X X X X

Since:

3.0

### 6.524.2 Constructor & Destructor Documentation

**6.524.2.1** **activemq::util::PrimitiveValueConverter::PrimitiveValueConverter** ()  
[inline]

**6.524.2.2** **virtual**  
**activemq::util::PrimitiveValueConverter::~~PrimitiveValueConverter** ()  
[inline, virtual]

### 6.524.3 Member Function Documentation

**6.524.3.1** **std::vector< unsigned char > activemq::util::PrimitiveValueConverter::convert** (const **PrimitiveValueNode** & *value*) const throw ( decaf::lang::exceptions::UnsupportedOperationException )  
[inline]

The documentation for this class was generated from the following file:

- `src/main/activemq/util/PrimitiveValueConverter.h`

## 6.525 activemq::util::PrimitiveValueNode Class Reference

Class that wraps around a single value of one of the many types.

```
#include <src/main/activemq/util/PrimitiveValueNode.h>
```

### Data Structures

- union **PrimitiveValue**

*Define a union type comprised of the various types.*

### Public Types

- enum **PrimitiveType** {  
    **NULL\_TYPE** = 0, **BOOLEAN\_TYPE** = 1, **BYTE\_TYPE** = 2, **CHAR\_TYPE** = 3,  
    **SHORT\_TYPE** = 4, **INTEGER\_TYPE** = 5, **LONG\_TYPE** = 6, **DOUBLE\_TYPE** = 7,  
    **FLOAT\_TYPE** = 8, **STRING\_TYPE** = 9, **BYTE\_ARRAY\_TYPE** = 10, **MAP\_TYPE** = 11,  
    **LIST\_TYPE** = 12, **BIG\_STRING\_TYPE** = 13 }

*Enumeration for the various primitive types.*

### Public Member Functions

- **PrimitiveValueNode** ()  
*Default Constructor, creates a value of the NULL\_TYPE.*
- **PrimitiveValueNode** (bool value)  
*Boolean Value Constructor.*
- **PrimitiveValueNode** (unsigned char value)  
*Byte Value Constructor.*
- **PrimitiveValueNode** (char value)  
*Char Value Constructor.*
- **PrimitiveValueNode** (short value)  
*Short Value Constructor.*
- **PrimitiveValueNode** (int value)  
*Int Value Constructor.*
- **PrimitiveValueNode** (long long value)  
*Long Value Constructor.*
- **PrimitiveValueNode** (float value)

*Float Value Constructor.*

- **PrimitiveValueNode** (double value)  
*Double Value Constructor.*
- **PrimitiveValueNode** (const char \*value)  
*String Value Constructor.*
- **PrimitiveValueNode** (const std::string &value)  
*String Value Constructor.*
- **PrimitiveValueNode** (const std::vector< unsigned char > &value)  
*Byte Array Value Constructor.*
- **PrimitiveValueNode** (const decaf::util::List< PrimitiveValueNode > &value)  
*Primitive List Constructor.*
- **PrimitiveValueNode** (const decaf::util::Map< std::string, PrimitiveValueNode > &value)  
*Primitive Map Value Constructor.*
- **PrimitiveValueNode** (const PrimitiveValueNode &node)  
*Copy constructor.*
- **~PrimitiveValueNode** ()
- **PrimitiveValueNode & operator=** (const PrimitiveValueNode &node)  
*Assignment operator, copies the data from the other node.*
- **bool operator==** (const PrimitiveValueNode &node) const  
*Comparison Operator, compares this node to the other node.*
- **PrimitiveType getType** () const  
*Gets the Value Type of this type wrapper.*
- **PrimitiveValue getValue** () const  
*Gets the internal Primitive Value object from this wrapper.*
- **void setValue** (const PrimitiveValue &value, PrimitiveType valueType)  
*Sets the internal PrimitiveVale object to the new value along with the tag for the type that it consists of.*
- **void clear** ()  
*Clears the value from this wrapper converting it back to a blank NULL\_ TYPE value.*
- **void setBool** (bool value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- **bool getBool** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Boolean value of this Node.*



- void **setByte** (unsigned char value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- unsigned char **getByte** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Byte value of this Node.*
- void **setChar** (char value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- char **getChar** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Character value of this Node.*
- void **setShort** (short value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- short **getShort** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Short value of this Node.*
- void **setInt** (int value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- int **getInt** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Integer value of this Node.*
- void **setLong** (long long value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- long long **getLong** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Long value of this Node.*
- void **setFloat** (float value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- float **getFloat** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Float value of this Node.*
- void **setDouble** (double value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- double **getDouble** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Double value of this Node.*

- **void setString** (const std::string &value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- **std::string getString** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the String value of this Node.*
- **void setByteArray** (const std::vector< unsigned char > &value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- **std::vector< unsigned char > getByteArray** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Byte Array value of this Node.*
- **void setList** (const decaf::util::List< PrimitiveValueNode > &value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- **const decaf::util::List< PrimitiveValueNode > & getList** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Primitive List value of this Node.*
- **void setMap** (const decaf::util::Map< std::string, PrimitiveValueNode > &value)  
*Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.*
- **const decaf::util::Map< std::string, PrimitiveValueNode > & getMap** () const throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets the Primitive Map value of this Node.*
- **std::string toString** () const  
*Creates a string representation of this value.*

### 6.525.1 Detailed Description

Class that wraps around a single value of one of the many types. Manages memory for complex types, such as strings. Note: the destructor was left non-virtual so no virtual table will be created. This probably isn't necessary, but will avoid needless memory allocation. Since we'll never extend this class, not having a virtual destructor isn't a concern.

### 6.525.2 Member Enumeration Documentation

#### 6.525.2.1 enum activemq::util::PrimitiveValueNode::PrimitiveType

Enumeration for the various primitive types.

Enumerator:

**NULL\_ TYPE**

*BOOLEAN\_TYPE*  
*BYTE\_TYPE*  
*CHAR\_TYPE*  
*SHORT\_TYPE*  
*INTEGER\_TYPE*  
*LONG\_TYPE*  
*DOUBLE\_TYPE*  
*FLOAT\_TYPE*  
*STRING\_TYPE*  
*BYTE\_ARRAY\_TYPE*  
*MAP\_TYPE*  
*LIST\_TYPE*  
*BIG\_STRING\_TYPE*

### 6.525.3 Constructor & Destructor Documentation

#### 6.525.3.1 activemq::util::PrimitiveValueNode::PrimitiveValueNode ()

Default Constructor, creates a value of the `NULL_TYPE`.

#### 6.525.3.2 activemq::util::PrimitiveValueNode::PrimitiveValueNode (bool *value*)

Boolean Value Constructor.

**Parameters:**

*value* - the new value to store.

#### 6.525.3.3 activemq::util::PrimitiveValueNode::PrimitiveValueNode (unsigned char *value*)

Byte Value Constructor.

**Parameters:**

*value* - the new value to store.

#### 6.525.3.4 activemq::util::PrimitiveValueNode::PrimitiveValueNode (char *value*)

Char Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.5    activemq::util::PrimitiveValueNode::PrimitiveValueNode (short *value*)**

Short Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.6    activemq::util::PrimitiveValueNode::PrimitiveValueNode (int *value*)**

Int Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.7    activemq::util::PrimitiveValueNode::PrimitiveValueNode (long long *value*)**

Long Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.8    activemq::util::PrimitiveValueNode::PrimitiveValueNode (float *value*)**

Float Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.9    activemq::util::PrimitiveValueNode::PrimitiveValueNode (double *value*)**

Double Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.10    activemq::util::PrimitiveValueNode::PrimitiveValueNode (const char \* *value*)**

String Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.11** `activemq::util::PrimitiveValueNode::PrimitiveValueNode (const std::string & value)`

String Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.12** `activemq::util::PrimitiveValueNode::PrimitiveValueNode (const std::vector< unsigned char > & value)`

Byte Array Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.13** `activemq::util::PrimitiveValueNode::PrimitiveValueNode (const decaf::util::List< PrimitiveValueNode > & value)`

Primitive List Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.14** `activemq::util::PrimitiveValueNode::PrimitiveValueNode (const decaf::util::Map< std::string, PrimitiveValueNode > & value)`

Primitive Map Value Constructor.

**Parameters:**

*value* - the new value to store.

**6.525.3.15** `activemq::util::PrimitiveValueNode::PrimitiveValueNode (const PrimitiveValueNode & node)`

Copy constructor.

**Parameters:**

*node* The instance of another node to copy to this one.

**6.525.3.16** `activemq::util::PrimitiveValueNode::~~PrimitiveValueNode () [inline]`**6.525.4** Member Function Documentation**6.525.4.1** `void activemq::util::PrimitiveValueNode::clear ()`

Clears the value from this wrapper converting it back to a blank NULL\_TYPE value.

**6.525.4.2** `bool activemq::util::PrimitiveValueNode::getBool () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Boolean value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.3** `unsigned char activemq::util::PrimitiveValueNode::getBytes () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Byte value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.4** `std::vector<unsigned char> activemq::util::PrimitiveValueNode::getBytesArray () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Byte Array value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.5** `char activemq::util::PrimitiveValueNode::getChar () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Character value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.6 double activemq::util::PrimitiveValueNode::getDouble () const throw (decaf::lang::exceptions::NoSuchElementException )**

Gets the Double value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.7 float activemq::util::PrimitiveValueNode::getFloat () const throw ( decaf::lang::exceptions::NoSuchElementException )**

Gets the Float value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.8 int activemq::util::PrimitiveValueNode::getInt () const throw ( decaf::lang::exceptions::NoSuchElementException )**

Gets the Integer value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.9 const decaf::util::List<PrimitiveValueNode>& activemq::util::PrimitiveValueNode::getList () const throw ( decaf::lang::exceptions::NoSuchElementException )**

Gets the Primitive List value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.10** `long long activemq::util::PrimitiveValueNode::getLong () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Long value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.11** `const decaf::util::Map<std::string, PrimitiveValueNode>& activemq::util::PrimitiveValueNode::getMap () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Primitive Map value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.12** `short activemq::util::PrimitiveValueNode::getShort () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the Short value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.

**6.525.4.13** `std::string activemq::util::PrimitiveValueNode::getString () const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets the String value of this Node.

**Returns:**

value contained at the given index

**Exceptions:**

*NoSuchElementException* this node cannot be returned as the requested type.



**6.525.4.14 PrimitiveType activemq::util::PrimitiveValueNode::getType () const**  
[inline]

Gets the Value Type of this type wrapper.

**Returns:**

the PrimitiveType value for this wrapper.

**6.525.4.15 PrimitiveValue activemq::util::PrimitiveValueNode::getValue () const**  
[inline]

Gets the internal Primitive Value object from this wrapper.

**Returns:**

a copy of the contained **PrimitiveValue** (p. 2551)

**6.525.4.16 PrimitiveValueNode& activemq::util::PrimitiveValueNode::operator=**  
(const PrimitiveValueNode & *node*)

Assignment operator, copies the data from the other node.

**Parameters:**

*node* The instance of another node to copy to this one.

**6.525.4.17 bool activemq::util::PrimitiveValueNode::operator==** (const  
PrimitiveValueNode & *node*) const

Comparison Operator, compares this node to the other node.

**Returns:**

true if the values are the same false otherwise.

**6.525.4.18 void activemq::util::PrimitiveValueNode::setBool** (bool *value*)

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.19 void activemq::util::PrimitiveValueNode::setByte** (unsigned char *value*)

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.20    void activemq::util::PrimitiveValueNode::setByteArray (const std::vector< unsigned char > & *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.21    void activemq::util::PrimitiveValueNode::setChar (char *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.22    void activemq::util::PrimitiveValueNode::setDouble (double *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.23    void activemq::util::PrimitiveValueNode::setFloat (float *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.24    void activemq::util::PrimitiveValueNode::setInt (int *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.25    void activemq::util::PrimitiveValueNode::setList (const decaf::util::List< PrimitiveValueNode > & *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.26 void activemq::util::PrimitiveValueNode::setLong (long long *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.27 void activemq::util::PrimitiveValueNode::setMap (const decaf::util::Map< std::string, PrimitiveValueNode > & *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.28 void activemq::util::PrimitiveValueNode::setShort (short *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.29 void activemq::util::PrimitiveValueNode::setString (const std::string & *value*)**

Sets the value of this value node to the new value specified, this method overwrites any data that was previously at the index given.

**Parameters:**

*value* - the new value to assign to the element at index

**6.525.4.30 void activemq::util::PrimitiveValueNode::setValue (const PrimitiveValue & *value*, PrimitiveType *valueType*)**

Sets the internal PrimitiveVale object to the new value along with the tag for the type that it consists of.

**Parameters:**

*value* The value to set as the value contained in this Node.

*valueType* The type of the value being set into this one.

**6.525.4.31** `std::string activemq::util::PrimitiveValueNode::toString () const`

Creates a string representation of this value.

**Returns:**

string value of this type wrapper.

The documentation for this class was generated from the following file:

- `src/main/activemq/util/PrimitiveValueNode.h`

## 6.526 decaf::security::Principal Class Reference

Base interface for a principal, which can represent an individual or organization.

#include <src/main/decaf/security/Principal.h> Inheritance diagram for decaf::security::Principal:

### Public Member Functions

- virtual **~Principal** ()
- virtual bool **equals** (const **Principal** &another) const =0  
*Compares two principals to see if they are the same.*
- virtual std::string **getName** () const =0  
*Provides the name of this principal.*

### 6.526.1 Detailed Description

Base interface for a principal, which can represent an individual or organization.

### 6.526.2 Constructor & Destructor Documentation

**6.526.2.1** virtual decaf::security::Principal::~~Principal () [inline, virtual]

### 6.526.3 Member Function Documentation

**6.526.3.1** virtual bool decaf::security::Principal::equals (const **Principal** & *another*) const [pure virtual]

Compares two principals to see if they are the same.

#### Parameters:

*another* A principal to be tested for equality to this one.

#### Returns:

true if the given principal is equivalent to this one.

**6.526.3.2** virtual std::string decaf::security::Principal::getName () const [pure virtual]

Provides the name of this principal.

#### Returns:

the name of this principal.

Implemented in **decaf::security::auth::x500::X500Principal** (p. 3406).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/Principal.h`

## 6.527 decaf::util::PriorityQueue< E > Class Template Reference

An unbounded priority queue based on a binary heap algorithm.

#include <src/main/decaf/util/PriorityQueue.h> Inheritance diagram for decaf::util::PriorityQueue< E >:

### Data Structures

- class **ConstPriorityQueueIterator**
- class **PriorityQueueIterator**

### Public Member Functions

- **PriorityQueue** ()  
*Creates a **Priority Queue** (p. 2671) with the default initial capacity.*
- **PriorityQueue** (std::size\_t initialCapacity)  
*Creates a **Priority Queue** (p. 2671) with the capacity value supplied.*
- **PriorityQueue** (std::size\_t initialCapacity, **Comparator**< E > \*comparator)  
*Creates a **Priority Queue** (p. 2671) with the default initial capacity.*
- **PriorityQueue** (const **Collection**< E > &source)  
*Creates a **PriorityQueue** (p. 2571) containing the elements in the specified **Collection** (p. 1054).*
- **PriorityQueue** (const **PriorityQueue**< E > &source)  
*Creates a **PriorityQueue** (p. 2571) containing the elements in the specified priority queue.*
- virtual ~**PriorityQueue** ()
- **PriorityQueue**< E > & **operator=** (const **Collection**< E > &source)  
*Assignment operator, assign another **Collection** (p. 1054) to this one.*
- **PriorityQueue**< E > & **operator=** (const **PriorityQueue**< E > &source)  
*Assignment operator, assign another **PriorityQueue** (p. 2571) to this one.*
- virtual **decaf::util::Iterator**< E > \* **iterator** ()
- virtual **decaf::util::Iterator**< E > \* **iterator** () const
- virtual std::size\_t **size** () const  
*Returns the number of elements in this collection.*
- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )  
*Removes all elements of the queue.*
- virtual bool **offer** (const E &value) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException )

*Inserts the specified element into the queue provided that the condition allows such an operation.*

- virtual bool **poll** (E &result)

*Gets and removes the element in the head of the queue.*

- virtual bool **peek** (E &result) const

*Gets but not removes the element in the head of the queue.*

- virtual E **remove** () throw ( decaf::lang::exceptions::NoSuchElementException )

*Retrieves and removes the head of this queue.*

- virtual bool **remove** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )

*Removes a single instance of the specified element from this collection, if it is present (optional operation).*

- virtual bool **add** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )

*Inserts the specified element into this queue if it is possible to do so immediately without violating capacity restrictions, returning true upon success and throwing an *IllegalStateException* if no space is currently available.*

- decaf::lang::Pointer< **Comparator**< E > > **comparator** () const

*obtains a Copy of the Pointer instance that this **PriorityQueue** (p. 2571) is using to compare the elements in the queue with.*

## Friends

- class **PriorityQueueIterator**

### 6.527.1 Detailed Description

**template<typename E> class decaf::util::PriorityQueue< E >**

An unbounded priority queue based on a binary heap algorithm. The elements of the priority queue are ordered according to their natural ordering, or by a **Comparator** (p. 1086) provided to one of the constructors that accepts Comparators. A priority queue relying on natural ordering also does not permit insertion of non-comparable objects (doing so may result in a compiler error).

The head of this queue is the least element with respect to the specified ordering. If multiple elements are tied for least value, the head is one of those elements -- ties are broken arbitrarily. The queue retrieval operations poll, remove, peek, and element access the element at the head of the queue.

A priority queue is unbounded, but has an internal capacity governing the size of an array used to store the elements on the queue. It is always at least as large as the queue size. As elements are added to a priority queue, its capacity grows automatically. The details of the growth policy are not specified.

This class and its iterator implement all of the optional methods of the **Collection** (p. 1054) and **Iterator** (p. 1832) interfaces. The **Iterator** (p. 1832) provided in method **iterator()** (p. 2575) is



not guaranteed to traverse the elements of the priority queue in any particular order. If you need ordered traversal, consider using `Arrays::sort( pq.toArray() )`.

Note that this implementation is not synchronized. Multiple threads should not access a **PriorityQueue** (p. 2571) instance concurrently if any of the threads modifies the queue. Instead, use the thread-safe `PriorityBlockingQueue` class.

Implementation note: this implementation provides  $O(\log(n))$  time for the enqueueing and dequeuing methods (`offer`, `poll`, **`remove()`** (p. 2577) and `add`); linear time for the `remove(Object)` and `contains(Object)` methods; and constant time for the retrieval methods (`peek`, `element`, and `size`).

**Since:**

1.0

## 6.527.2 Constructor & Destructor Documentation

### 6.527.2.1 `template<typename E> decaf::util::PriorityQueue< E >::PriorityQueue()` [inline]

Creates a **Priority Queue** (p. 2671) with the default initial capacity.

### 6.527.2.2 `template<typename E> decaf::util::PriorityQueue< E >::PriorityQueue(std::size_t initialCapacity)` [inline]

Creates a **Priority Queue** (p. 2671) with the capacity value supplied.

**Parameters:**

*initialCapacity* The initial number of elements allocated to this **PriorityQueue** (p. 2571).

### 6.527.2.3 `template<typename E> decaf::util::PriorityQueue< E >::PriorityQueue(std::size_t initialCapacity, Comparator< E > * comparator)` [inline]

Creates a **Priority Queue** (p. 2671) with the default initial capacity. This new **PriorityQueue** (p. 2571) takes ownership of the passed **Comparator** (p. 1086) instance and uses that to determine the ordering of the elements in the **Queue** (p. 2671).

**Parameters:**

*initialCapacity* The initial number of elements allocated to this **PriorityQueue** (p. 2571).

*comparator* The **Comparator** (p. 1086) instance to use in sorting the elements in the **Queue** (p. 2671).

**Exceptions:**

*NullPointerException* if the passed **Comparator** (p. 1086) is NULL.

### 6.527.2.4 `template<typename E> decaf::util::PriorityQueue< E >::PriorityQueue(const Collection< E > & source)` [inline]

Creates a **PriorityQueue** (p. 2571) containing the elements in the specified **Collection** (p. 1054).

**Parameters:**

*source* the **Collection** (p. 1054) whose elements are to be placed into this priority queue

**6.527.2.5** `template<typename E> decaf::util::PriorityQueue< E >::PriorityQueue (const PriorityQueue< E > & source) [inline]`

Creates a **PriorityQueue** (p. 2571) containing the elements in the specified priority queue. This priority queue will be ordered according to the same ordering as the given priority queue.

**Parameters:**

*source* the priority queue whose elements are to be placed into this priority queue

**6.527.2.6** `template<typename E> virtual decaf::util::PriorityQueue< E >::~~PriorityQueue () [inline, virtual]`

**6.527.3 Member Function Documentation**

**6.527.3.1** `template<typename E> virtual bool decaf::util::PriorityQueue< E >::add (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException ) [inline, virtual]`

Inserts the specified element into this queue if it is possible to do so immediately without violating capacity restrictions, returning true upon success and throwing an `IllegalStateException` if no space is currently available. This implementation returns true if offer succeeds, else throws an `IllegalStateException`.

**Parameters:**

*value* - the element to offer to the **Queue** (p. 2671).

**Returns:**

true if the add succeeds.

**Exceptions:**

*IllegalArgumentException* if the element cannot be added.

Reimplemented from `decaf::util::AbstractQueue< E >` (p. 163).

References `DECAF_CATCH_EXCEPTION_CONVERT`, `DECAF_CATCH_RETHROW`, `DECAF_CATCHALL_THROW`, and `decaf::util::PriorityQueue< E >::offer()`.

**6.527.3.2** `template<typename E> virtual void decaf::util::PriorityQueue< E >::clear () throw ( lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Removes all elements of the queue. This implementation repeatedly invokes `poll` until it returns the empty marker.

Reimplemented from `decaf::util::AbstractQueue< E >` (p. 164).

### 6.527.3.3 `template<typename E> decaf::lang::Pointer< Comparator<E> > decaf::util::PriorityQueue< E >::comparator () const [inline]`

obtains a Copy of the Pointer instance that this **PriorityQueue** (p.2571) is using to compare the elements in the queue with. The returned value is a copy, the caller cannot change the value if the internal Pointer value.

#### Returns:

a copy of the **Comparator** (p.1086) Pointer being used by this **Queue** (p.2671).

### 6.527.3.4 `template<typename E> virtual decaf::util::Iterator<E>* decaf::util::PriorityQueue< E >::iterator () const [inline, virtual]`

Implements **decaf::lang::Iterable< E >** (p.1830).

### 6.527.3.5 `template<typename E> virtual decaf::util::Iterator<E>* decaf::util::PriorityQueue< E >::iterator () [inline, virtual]`

#### Returns:

an iterator over a set of elements of type T.

Implements **decaf::lang::Iterable< E >** (p.1830).

References **decaf::util::PriorityQueue< E >::PriorityQueueIterator**.

### 6.527.3.6 `template<typename E> virtual bool decaf::util::PriorityQueue< E >::offer (const E & value) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException ) [inline, virtual]`

Inserts the specified element into the queue provided that the condition allows such an operation. The method is generally preferable to the `collection.add(E)`, since the latter might throw an exception if the operation fails.

#### Parameters:

*value* the specified element to insert into the queue.

#### Returns:

true if the operation succeeds and false if it fails.

#### Exceptions:

**NullPointerException** if the **Queue** (p.2671) implementation does not allow Null values to be inserted into the **Queue** (p.2671).

**IllegalArgumentException** if some property of the specified element prevents it from being added to this queue

Implements **decaf::util::Queue< E >** (p.2672).

Referenced by **decaf::util::PriorityQueue< E >::add()**.

**6.527.3.7** `template<typename E> PriorityQueue<E>& decaf::util::PriorityQueue<E>::operator= (const PriorityQueue< E > & source) [inline]`

Assignment operator, assign another **PriorityQueue** (p. 2571) to this one.

**Parameters:**

*source* The **PriorityQueue** (p. 2571) to copy to this one.

**6.527.3.8** `template<typename E> PriorityQueue<E>& decaf::util::PriorityQueue<E>::operator= (const Collection< E > & source) [inline]`

Assignment operator, assign another **Collection** (p. 1054) to this one.

**Parameters:**

*source* The **Collection** (p. 1054) to copy to this one.

**6.527.3.9** `template<typename E> virtual bool decaf::util::PriorityQueue< E>::peek (E & result) const [inline, virtual]`

Gets but not removes the element in the head of the queue. The result if successful is assigned to the result parameter.

**Parameters:**

*result* Reference to an instance of the contained type to assigned the removed value to.

**Returns:**

true if the element at the head of the queue was removed and assigned to the result parameter.

Implements **decaf::util::Queue< E >** (p. 2672).

**6.527.3.10** `template<typename E> virtual bool decaf::util::PriorityQueue< E>::poll (E & result) [inline, virtual]`

Gets and removes the element in the head of the queue. If the operation succeeds the value of the element at the head of the **Queue** (p. 2671) is assigned to the result parameter and the method returns true. If the operation fails the method returns false and the value of the result parameter is undefined.

**Parameters:**

*result* Reference to an instance of the contained type to assigned the removed value to.

**Returns:**

true if the element at the head of the queue was removed and assigned to the result parameter.

Implements **decaf::util::Queue< E >** (p. 2673).

**6.527.3.11** `template<typename E> virtual bool decaf::util::PriorityQueue< E >::remove (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException ) [inline, virtual]`

Removes a single instance of the specified element from this collection, if it is present (optional operation). More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

**Parameters:**

*value* - element to be removed from this collection, if present

**Returns:**

true if an element was removed as a result of this call

**Exceptions:**

*UnsupportedOperationException* if the remove operation is not supported by this collection.

*IllegalArgumentException* If the value is not a valid entry for this **Collection** (p. 1054).

Reimplemented from `decaf::util::AbstractCollection< E >` (p. 155).

**6.527.3.12** `template<typename E> virtual E decaf::util::PriorityQueue< E >::remove () throw ( decaf::lang::exceptions::NoSuchElementException ) [inline, virtual]`

Retrieves and removes the head of this queue. This method differs from poll only in that it throws an exception if this queue is empty.

This implementation returns the result of poll unless the queue is empty.

**Returns:**

a copy of the element in the head of the queue.

**Exceptions:**

*NoSuchElementException* if the queue is empty.

Reimplemented from `decaf::util::AbstractQueue< E >` (p. 164).

**6.527.3.13** `template<typename E> virtual std::size_t decaf::util::PriorityQueue< E >::size () const [inline, virtual]`

Returns the number of elements in this collection. If this collection contains more than `Integer.MAX_VALUE` elements, returns `Integer.MAX_VALUE`.

**Returns:**

the number of elements in this collection

Implements **decaf::util::Collection**< **E** > (p. 1062).

## 6.527.4 Friends And Related Function Documentation

### 6.527.4.1 `template<typename E> friend class PriorityQueueIterator` [friend]

Referenced by `decaf::util::PriorityQueue`< **E** >::iterator().

The documentation for this class was generated from the following file:

- `src/main/decaf/util/`**PriorityQueue.h**

## 6.528 activemq::commands::ProducerAck Class Reference

#include <src/main/activemq/commands/ProducerAck.h> Inheritance diagram for activemq::commands::ProducerAck:

### Public Member Functions

- **ProducerAck** ()
- virtual **~ProducerAck** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ProducerAck \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ProducerId** > & **getProducerId** () const
- virtual **Pointer**< **ProducerId** > & **getProducerId** ()
- virtual void **setProducerId** (const **Pointer**< **ProducerId** > &producerId)
- virtual int **getSize** () const
- virtual void **setSize** (int size)
- virtual bool **isProducerAck** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor)  
throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_PRODUCERACK** = 19

### Protected Member Functions

- **ProducerAck** (const **ProducerAck** &)
- **ProducerAck** & **operator=** (const **ProducerAck** &)

## Protected Attributes

- `Pointer< ProducerId > producerId`
- `int size`

## 6.528.1 Constructor & Destructor Documentation

**6.528.1.1** `activemq::commands::ProducerAck::ProducerAck (const ProducerAck &) [inline, protected]`

**6.528.1.2** `activemq::commands::ProducerAck::ProducerAck ()`

**6.528.1.3** `virtual activemq::commands::ProducerAck::~~ProducerAck () [virtual]`

## 6.528.2 Member Function Documentation

**6.528.2.1** `virtual ProducerAck* activemq::commands::ProducerAck::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.528.2.2** `virtual void activemq::commands::ProducerAck::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.528.2.3** `virtual bool activemq::commands::ProducerAck::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).



**6.528.2.4** virtual unsigned char activemq::commands::ProducerAck::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.528.2.5** virtual Pointer<ProducerId>& activemq::commands::ProducerAck::getProducerId () [virtual]

**6.528.2.6** virtual const Pointer<ProducerId>& activemq::commands::ProducerAck::getProducerId () const [virtual]

**6.528.2.7** virtual int activemq::commands::ProducerAck::getSize () const [virtual]

**6.528.2.8** virtual bool activemq::commands::ProducerAck::isProducerAck () const [inline, virtual]

**Returns:**

an answer of true to the **isProducerAck()** (p. 2581) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 654).

**6.528.2.9** ProducerAck& activemq::commands::ProducerAck::operator= (const ProducerAck &) [inline, protected]

**6.528.2.10** virtual void activemq::commands::ProducerAck::setProducerId (const Pointer< ProducerId > & *producerId*) [virtual]

**6.528.2.11** virtual void activemq::commands::ProducerAck::setSize (int *size*) [virtual]

**6.528.2.12** virtual std::string activemq::commands::ProducerAck::toString () const [virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.528.2.13** `virtual Pointer<Command> activemq::commands::ProducerAck::visit  
(activemq::state::CommandVisitor * visitor) throw (  
exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.528.3 Field Documentation

**6.528.3.1** `const unsigned char activemq::commands::ProducerAck::ID_-  
PRODUCERACK = 19 [static]`

**6.528.3.2** `Pointer<ProducerId> activemq::commands::ProducerAck::producerId  
[protected]`

**6.528.3.3** `int activemq::commands::ProducerAck::size [protected]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ProducerAck.h`

## 6.529 activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2583).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ProducerAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller:

### Public Member Functions

- **ProducerAckMarshaller** ()
- virtual **~ProducerAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.529.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2583). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.529.2 Constructor & Destructor Documentation

**6.529.2.1** `activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::ProducerAckMarshaller()` [inline]

**6.529.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::~~ProducerAckMarshaller()` [inline, virtual]

## 6.529.3 Member Function Documentation

**6.529.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.529.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.529.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.529.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.529.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.529.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.529.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**ProducerAckMarshaller.h**

## 6.530 activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2587).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ProducerAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller:

### Public Member Functions

- **ProducerAckMarshaller** ()
- virtual **~ProducerAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.530.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2587). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.530.2 Constructor & Destructor Documentation

**6.530.2.1** `activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::ProducerAckMarshaller()` [inline]

**6.530.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::~~ProducerAckMarshaller()` [inline, virtual]

## 6.530.3 Member Function Documentation

**6.530.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.530.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.530.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.530.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.530.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.530.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.530.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**ProducerAckMarshaller.h**

## 6.531 activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2591).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ProducerAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller:

### Public Member Functions

- **ProducerAckMarshaller** ()
- virtual **~ProducerAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.531.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2591). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.531.2 Constructor & Destructor Documentation

**6.531.2.1** `activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::ProducerAckMarshaller()` [inline]

**6.531.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::~~ProducerAckMarshaller()` [inline, virtual]

## 6.531.3 Member Function Documentation

**6.531.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.531.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.531.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.531.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.531.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.531.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.531.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**ProducerAckMarshaller.h**

## 6.532 activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2595).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ProducerAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller:

### Public Member Functions

- **ProducerAckMarshaller** ()
- virtual **~ProducerAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.532.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2595). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.532.2 Constructor & Destructor Documentation

**6.532.2.1** `activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::ProducerAckMarshaller()` [inline]

**6.532.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::~~ProducerAckMarshaller()` [inline, virtual]

## 6.532.3 Member Function Documentation

**6.532.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.532.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.532.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.532.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.532.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.532.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.532.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**ProducerAckMarshaller.h**

## 6.533 activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2599).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ProducerAckMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller:

### Public Member Functions

- **ProducerAckMarshaller** ()
- virtual **~ProducerAckMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.533.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2599). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

### 6.533.2 Constructor & Destructor Documentation

**6.533.2.1** `activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::ProducerAckMarshaller()` [inline]

**6.533.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::~~ProducerAckMarshaller()` [inline, virtual]

### 6.533.3 Member Function Documentation

**6.533.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

#### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.533.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

#### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.533.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.533.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.533.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.533.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.533.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**ProducerAckMarshaller.h**

## 6.534 activemq::cmsutil::ProducerCallback Class Reference

Callback for sending a message to a CMS destination.

#include <src/main/activemq/cmsutil/ProducerCallback.h> Inheritance diagram for activemq::cmsutil::ProducerCallback:

### Public Member Functions

- virtual **~ProducerCallback** ()
- virtual void **doInCms** (**cms::Session** \*session, **cms::MessageProducer** \*producer)=0  
throw ( cms::CMSException )

*Execute an action given a session and producer.*

#### 6.534.1 Detailed Description

Callback for sending a message to a CMS destination.

#### 6.534.2 Constructor & Destructor Documentation

- 6.534.2.1** virtual **activemq::cmsutil::ProducerCallback::~~ProducerCallback** ()  
[inline, virtual]

#### 6.534.3 Member Function Documentation

- 6.534.3.1** virtual void **activemq::cmsutil::ProducerCallback::doInCms**  
(**cms::Session** \* *session*, **cms::MessageProducer** \* *producer*) throw (  
**cms::CMSException** ) [pure virtual]

Execute an action given a session and producer.

#### Parameters:

*session* the CMS Session

*producer* the CMS Producer

#### Exceptions:

**cms::CMSException** (p. 1031) if thrown by CMS API methods

Implemented in **activemq::cmsutil::CmsTemplate::SendExecutor** (p. 2836).

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/**ProducerCallback.h**

## 6.535 activemq::cmsutil::CmsTemplate::ProducerExecutor Class Reference

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate::ProducerExecutor:

### Public Member Functions

- **ProducerExecutor** (**ProducerCallback** \**action*, **CmsTemplate** \**parent*, **cms::Destination** \**destination*)
- virtual **~ProducerExecutor** ()
- virtual void **doInCms** (**cms::Session** \**session*) throw ( **cms::CMSException** )  
*Execute any number of operations against the supplied CMS session.*
- virtual **cms::Destination** \* **getDestination** (**cms::Session** \**session* **AMQCPP\_UNUSED**) throw ( **cms::CMSException** )

### Protected Attributes

- **ProducerCallback** \* *action*
- **CmsTemplate** \* *parent*
- **cms::Destination** \* *destination*

### 6.535.1 Constructor & Destructor Documentation

- 6.535.1.1** **activemq::cmsutil::CmsTemplate::ProducerExecutor::ProducerExecutor** (**ProducerCallback** \* *action*, **CmsTemplate** \* *parent*, **cms::Destination** \* *destination*) [inline]
- 6.535.1.2** **virtual**  
**activemq::cmsutil::CmsTemplate::ProducerExecutor::~~ProducerExecutor** () [inline, virtual]

### 6.535.2 Member Function Documentation

- 6.535.2.1** **virtual void** **activemq::cmsutil::CmsTemplate::ProducerExecutor::doInCms** (**cms::Session** \* *session*) throw ( **cms::CMSException** ) [virtual]

Execute any number of operations against the supplied CMS session.

#### Parameters:

*session* the CMS Session

#### Exceptions:

**cms::CMSException** (p. 1031) if thrown by CMS API methods

Implements **activemq::cmsutil::SessionCallback** (p. 2852).



**6.535.2.2** virtual cms::Destination\* activemq::cmsutil::CmsTemplate::ProducerExecutor::getDestination (cms::Session \*session *AMQCPP\_UNUSED*) throw ( cms::CMSException ) [inline, virtual]

### 6.535.3 Field Documentation

**6.535.3.1** ProducerCallback\* activemq::cmsutil::CmsTemplate::ProducerExecutor::action [protected]

**6.535.3.2** cms::Destination\* activemq::cmsutil::CmsTemplate::ProducerExecutor::destination [protected]

**6.535.3.3** CmsTemplate\* activemq::cmsutil::CmsTemplate::ProducerExecutor::parent [protected]

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/**CmsTemplate.h**

## 6.536 activemq::commands::ProducerId Class Reference

#include <src/main/activemq/commands/ProducerId.h> Inheritance diagram for activemq::commands::ProducerId:

### Public Types

- typedef decaf::lang::PointerComparator< **ProducerId** > **COMPARATOR**

### Public Member Functions

- **ProducerId** ()
- **ProducerId** (const **ProducerId** &other)
- **ProducerId** (const **SessionId** &sessionId, long long consumerId)
- virtual ~**ProducerId** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ProducerId** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- const **Pointer**< **SessionId** > & **getParentId** () const
- virtual const std::string & **getConnectionId** () const
- virtual std::string & **getConnectionId** ()
- virtual void **setConnectionId** (const std::string &connectionId)
- virtual long long **getValue** () const
- virtual void **setValue** (long long value)
- virtual long long **getSessionId** () const
- virtual void **setSessionId** (long long sessionId)
- virtual int **compareTo** (const **ProducerId** &value) const
- virtual bool **equals** (const **ProducerId** &value) const
- virtual bool **operator==** (const **ProducerId** &value) const
- virtual bool **operator<** (const **ProducerId** &value) const
- **ProducerId** & **operator=** (const **ProducerId** &other)

## Static Public Attributes

- static const unsigned char **ID\_PRODUCERID** = 123

## Protected Attributes

- std::string **connectionId**
- long long **value**
- long long **sessionId**

## 6.536.1 Member Typedef Documentation

- 6.536.1.1**    `typedef decaf::lang::PointerComparator<ProducerId>  
activemq::commands::ProducerId::COMPARATOR`

## 6.536.2 Constructor & Destructor Documentation

- 6.536.2.1**    `activemq::commands::ProducerId::ProducerId ()`
- 6.536.2.2**    `activemq::commands::ProducerId::ProducerId (const ProducerId &  
other)`
- 6.536.2.3**    `activemq::commands::ProducerId::ProducerId (const SessionId &  
sessionId, long long consumerId) [inline]`

References `activemq::commands::SessionId::getConnectionId()`, `activemq::commands::SessionId::getValue()`, and `activemq::commands::SessionId::getValue()`.

- 6.536.2.4**    `virtual activemq::commands::ProducerId::~~ProducerId () [virtual]`

## 6.536.3 Member Function Documentation

- 6.536.3.1**    `virtual ProducerId* ac-  
tivemq::commands::ProducerId::cloneDataStructure ()  
const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

- 6.536.3.2**    `virtual int activemq::commands::ProducerId::compareTo (const  
ProducerId & value) const [virtual]`
- 6.536.3.3**    `virtual void activemq::commands::ProducerId::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

**Parameters:**

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.536.3.4** `virtual bool activemq::commands::ProducerId::equals (const ProducerId & value) const` [virtual]

**6.536.3.5** `virtual bool activemq::commands::ProducerId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.536.3.6** `virtual std::string& activemq::commands::ProducerId::getConnectionId ()` [virtual]

**6.536.3.7** `virtual const std::string& activemq::commands::ProducerId::getConnectionId () const` [virtual]

**6.536.3.8** `virtual unsigned char activemq::commands::ProducerId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.536.3.9 `const Pointer<SessionId>& activemq::commands::ProducerId::getParentId () const`
- 6.536.3.10 `virtual long long activemq::commands::ProducerId::getSessionId () const [virtual]`
- 6.536.3.11 `virtual long long activemq::commands::ProducerId::getValue () const [virtual]`
- 6.536.3.12 `virtual bool activemq::commands::ProducerId::operator< (const ProducerId & value) const [virtual]`
- 6.536.3.13 `ProducerId& activemq::commands::ProducerId::operator= (const ProducerId & other)`
- 6.536.3.14 `virtual bool activemq::commands::ProducerId::operator== (const ProducerId & value) const [virtual]`
- 6.536.3.15 `virtual void activemq::commands::ProducerId::setConnectionId (const std::string & connectionId) [virtual]`
- 6.536.3.16 `virtual void activemq::commands::ProducerId::setSessionId (long long sessionId) [virtual]`
- 6.536.3.17 `virtual void activemq::commands::ProducerId::setValue (long long value) [virtual]`
- 6.536.3.18 `virtual std::string activemq::commands::ProducerId::toString () const [virtual]`

Returns a string containing the information for this **DataSet** (p.1461) such as its type and value of its elements.

#### Returns:

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataSet** (p.718).

## 6.536.4 Field Documentation

- 6.536.4.1 `std::string activemq::commands::ProducerId::connectionId [protected]`
- 6.536.4.2 `const unsigned char activemq::commands::ProducerId::ID_ - PRODUCERID = 123 [static]`

Referenced by `activemq::state::CommandVisitorAdapter::processRemoveInfo()`.

**6.536.4.3**   `long long activemq::commands::ProducerId::sessionId`   [protected]

**6.536.4.4**   `long long activemq::commands::ProducerId::value`   [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ProducerId.h`

## 6.537 activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2611).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ProducerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller:

### Public Member Functions

- **ProducerIdMarshaller** ()
- virtual **~ProducerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.537.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2611). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.537.2 Constructor & Destructor Documentation

**6.537.2.1** `activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::ProducerIdMarshaller()` [inline]

**6.537.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::~~ProducerIdMarshaller()` [inline, virtual]

## 6.537.3 Member Function Documentation

**6.537.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.537.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.537.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.537.3.4** virtual void **activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - **BinaryReader** that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.537.3.5** virtual int **activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a **BooleanStream**.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - **BooleanStream** stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.537.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.537.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**ProducerIdMarshaller.h**

## 6.538 activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2615).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ProducerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller:

### Public Member Functions

- **ProducerIdMarshaller** ()
- virtual **~ProducerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.538.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2615). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.538.2 Constructor & Destructor Documentation

**6.538.2.1** `activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::ProducerIdMarshaller()` [inline]

**6.538.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::~~ProducerIdMarshaller()` [inline, virtual]

## 6.538.3 Member Function Documentation

**6.538.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.538.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.538.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.538.3.4** virtual void **activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.538.3.5** virtual int **activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.538.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.538.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**ProducerIdMarshaller.h**

## 6.539 activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2619).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ProducerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller:

### Public Member Functions

- **ProducerIdMarshaller** ()
- virtual **~ProducerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.539.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2619). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.539.2 Constructor & Destructor Documentation

**6.539.2.1** `activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::ProducerIdMarshaller()` [inline]

**6.539.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::~~ProducerIdMarshaller()` [inline, virtual]

## 6.539.3 Member Function Documentation

**6.539.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.539.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.539.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.539.3.4** virtual void **activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.539.3.5** virtual int **activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.539.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.539.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**ProducerIdMarshaller.h**

## 6.540 activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2623).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ProducerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller:

### Public Member Functions

- **ProducerIdMarshaller** ()
- virtual **~ProducerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.540.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2623). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.540.2 Constructor & Destructor Documentation

**6.540.2.1** `activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::ProducerIdMarshaller()` [inline]

**6.540.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::~~ProducerIdMarshaller()` [inline, virtual]

## 6.540.3 Member Function Documentation

**6.540.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.540.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.540.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.540.3.4** virtual void **activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.540.3.5** virtual int **activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.540.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.540.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**ProducerIdMarshaller.h**

## 6.541 activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2627).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ProducerIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller:

### Public Member Functions

- **ProducerIdMarshaller** ()
- virtual **~ProducerIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.541.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2627). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.541.2 Constructor & Destructor Documentation

**6.541.2.1** `activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::ProducerIdMarshaller()` [inline]

**6.541.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::~~ProducerIdMarshaller()` [inline, virtual]

## 6.541.3 Member Function Documentation

**6.541.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.541.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.541.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.541.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.541.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.541.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.541.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**ProducerIdMarshaller.h**

## 6.542 activemq::commands::ProducerInfo Class Reference

#include <src/main/activemq/commands/ProducerInfo.h> Inheritance diagram for activemq::commands::ProducerInfo:

### Public Member Functions

- **ProducerInfo** ()
- virtual **~ProducerInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ProducerInfo** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ProducerId** > & **getProducerId** () const
- virtual **Pointer**< **ProducerId** > & **getProducerId** ()
- virtual void **setProducerId** (const **Pointer**< **ProducerId** > &producerId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** () const
- virtual std::vector< **decaf::lang::Pointer**< **BrokerId** > > & **getBrokerPath** ()
- virtual void **setBrokerPath** (const std::vector< **decaf::lang::Pointer**< **BrokerId** > > &brokerPath)
- virtual bool **isDispatchAsync** () const
- virtual void **setDispatchAsync** (bool dispatchAsync)
- virtual int **getWindowSize** () const
- virtual void **setWindowSize** (int windowSize)
- virtual bool **isProducerInfo** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

## Static Public Attributes

- static const unsigned char **ID\_PRODUCERINFO** = 6

## Protected Member Functions

- **ProducerInfo** (const **ProducerInfo** &)
- **ProducerInfo** & **operator=** (const **ProducerInfo** &)

## Protected Attributes

- **Pointer**< **ProducerId** > **producerId**
- **Pointer**< **ActiveMQDestination** > **destination**
- **std::vector**< **decaf::lang::Pointer**< **BrokerId** > > **brokerPath**
- bool **dispatchAsync**
- int **windowSize**

### 6.542.1 Constructor & Destructor Documentation

**6.542.1.1** **activemq::commands::ProducerInfo::ProducerInfo** (const **ProducerInfo** &) [inline, protected]

**6.542.1.2** **activemq::commands::ProducerInfo::ProducerInfo** ()

**6.542.1.3** **virtual** **activemq::commands::ProducerInfo::~~ProducerInfo** () [virtual]

### 6.542.2 Member Function Documentation

**6.542.2.1** **virtual** **ProducerInfo\*** **activemq::commands::ProducerInfo::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

**6.542.2.2** **virtual** void **activemq::commands::ProducerInfo::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.542.2.3 virtual bool activemq::commands::ProducerInfo::equals (const DataStructure \* *value*) const [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

### 6.542.2.4 virtual std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ProducerInfo::getBrokerPath () [virtual]

### 6.542.2.5 virtual const std::vector< decaf::lang::Pointer<BrokerId> >& activemq::commands::ProducerInfo::getBrokerPath () const [virtual]

### 6.542.2.6 virtual unsigned char activemq::commands::ProducerInfo::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

#### Returns:

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.542.2.7 `virtual Pointer<ActiveMQDestination>& activemq::commands::ProducerInfo::getDestination ()`  
[virtual]
- 6.542.2.8 `virtual const Pointer<ActiveMQDestination>& activemq::commands::ProducerInfo::getDestination () const` [virtual]
- 6.542.2.9 `virtual Pointer<ProducerId>& activemq::commands::ProducerInfo::getProducerId ()`  
[virtual]
- 6.542.2.10 `virtual const Pointer<ProducerId>& activemq::commands::ProducerInfo::getProducerId () const`  
[virtual]
- 6.542.2.11 `virtual int activemq::commands::ProducerInfo::getWindowSize () const`  
[virtual]
- 6.542.2.12 `virtual bool activemq::commands::ProducerInfo::isDispatchAsync () const` [virtual]
- 6.542.2.13 `virtual bool activemq::commands::ProducerInfo::isProducerInfo () const`  
[inline, virtual]

**Returns:**

an answer of true to the `isProducerInfo()` (p. 2634) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 654).

- 6.542.2.14 `ProducerInfo& activemq::commands::ProducerInfo::operator= (const ProducerInfo &)` [inline, protected]
- 6.542.2.15 `virtual void activemq::commands::ProducerInfo::setBrokerPath (const std::vector< decaf::lang::Pointer< BrokerId > > & brokerPath)`  
[virtual]
- 6.542.2.16 `virtual void activemq::commands::ProducerInfo::setDestination (const Pointer< ActiveMQDestination > & destination)` [virtual]
- 6.542.2.17 `virtual void activemq::commands::ProducerInfo::setDispatchAsync (bool dispatchAsync)` [virtual]
- 6.542.2.18 `virtual void activemq::commands::ProducerInfo::setProducerId (const Pointer< ProducerId > & producerId)` [virtual]
- 6.542.2.19 `virtual void activemq::commands::ProducerInfo::setWindowSize (int windowSize)` [virtual]
- 6.542.2.20 `virtual std::string activemq::commands::ProducerInfo::toString () const`  
[virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

**6.542.2.21** `virtual Pointer<Command> activemq::commands::ProducerInfo::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

**6.542.3 Field Documentation**

**6.542.3.1** `std::vector< decaf::lang::Pointer<BrokerId> > activemq::commands::ProducerInfo::brokerPath` [protected]

**6.542.3.2** `Pointer<ActiveMQDestination> activemq::commands::ProducerInfo::destination` [protected]

**6.542.3.3** `bool activemq::commands::ProducerInfo::dispatchAsync` [protected]

**6.542.3.4** `const unsigned char activemq::commands::ProducerInfo::ID_PRODUCERINFO = 6` [static]

**6.542.3.5** `Pointer<ProducerId> activemq::commands::ProducerInfo::producerId` [protected]

**6.542.3.6** `int activemq::commands::ProducerInfo::windowSize` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ProducerInfo.h`

## 6.543 activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2636).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ProducerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller:

### Public Member Functions

- **ProducerInfoMarshaller** ()
- virtual **~ProducerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.543.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2636). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.543.2 Constructor & Destructor Documentation

**6.543.2.1** `activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::ProducerInfoMarshaller()` [inline]

**6.543.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::~~ProducerInfoMarshaller()` [inline, virtual]

## 6.543.3 Member Function Documentation

**6.543.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.543.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.543.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.543.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.543.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.543.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.543.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**ProducerInfoMarshaller.h**

## 6.544 activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2640).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ProducerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller:

### Public Member Functions

- **ProducerInfoMarshaller** ()
- virtual **~ProducerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.544.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2640). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.544.2 Constructor & Destructor Documentation

6.544.2.1 `activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::ProducerInfoMarshaller()` [inline]

6.544.2.2 `virtual activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::~~ProducerInfoMarshaller()` [inline, virtual]

## 6.544.3 Member Function Documentation

6.544.3.1 `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

6.544.3.2 `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

6.544.3.3 `virtual void activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.544.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.544.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.544.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.544.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**ProducerInfoMarshaller.h**

## 6.545 activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2644).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ProducerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller:

### Public Member Functions

- **ProducerInfoMarshaller** ()
- virtual **~ProducerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.545.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2644). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.545.2 Constructor & Destructor Documentation

6.545.2.1 `activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::ProducerInfoMarshaller()` [inline]

6.545.2.2 `virtual activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::~~ProducerInfoMarshaller()` [inline, virtual]

## 6.545.3 Member Function Documentation

6.545.3.1 `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

6.545.3.2 `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

6.545.3.3 `virtual void activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.545.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.545.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.545.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.545.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**ProducerInfoMarshaller.h**

## 6.546 activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2648).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ProducerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller:

### Public Member Functions

- **ProducerInfoMarshaller** ()
- virtual **~ProducerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.546.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2648). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.546.2 Constructor & Destructor Documentation

**6.546.2.1** `activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::ProducerInfoMarshaller()` [inline]

**6.546.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::~~ProducerInfoMarshaller()` [inline, virtual]

## 6.546.3 Member Function Documentation

**6.546.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.546.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.546.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.546.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.546.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.546.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.546.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**ProducerInfoMarshaller.h**

## 6.547 activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2652).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ProducerInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller:

### Public Member Functions

- **ProducerInfoMarshaller** ()
- virtual **~ProducerInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaller.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.547.1 Detailed Description

Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2652). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.547.2 Constructor & Destructor Documentation

**6.547.2.1** `activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::ProducerInfoMarshaller()` [inline]

**6.547.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::~~ProducerInfoMarshaller()` [inline, virtual]

## 6.547.3 Member Function Documentation

**6.547.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.547.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.547.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.547.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.547.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.547.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.547.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**ProducerInfoMarshaller.h**

## 6.548 activemq::state::ProducerState Class Reference

```
#include <src/main/activemq/state/ProducerState.h>
```

### Public Member Functions

- **ProducerState** (const **Pointer**< **ProducerInfo** > &info)
- virtual **~ProducerState** ()
- std::string **toString** () const
- const **Pointer**< **ProducerInfo** > & **getInfo** () const

### 6.548.1 Constructor & Destructor Documentation

**6.548.1.1**   **activemq::state::ProducerState::ProducerState** (const **Pointer**< **ProducerInfo** > & *info*)

**6.548.1.2**   virtual **activemq::state::ProducerState::~~ProducerState** ()   [virtual]

### 6.548.2 Member Function Documentation

**6.548.2.1**   const **Pointer**<**ProducerInfo**>& **activemq::state::ProducerState::getInfo** () const   [inline]

**6.548.2.2**   std::string **activemq::state::ProducerState::toString** () const

The documentation for this class was generated from the following file:

- src/main/activemq/state/**ProducerState.h**

## 6.549 decaf::util::Properties Class Reference

Java-like properties class for mapping string names to string values.

```
#include <src/main/decaf/util/Properties.h>
```

### Public Member Functions

- **Properties** ()
- **Properties** (const **Properties** &src)
- virtual ~**Properties** ()
- **Properties** & **operator=** (const **Properties** &src)  
*Assignment Operator.*
- bool **isEmpty** () const  
*Returns true if the properties object is empty.*
- std::size\_t **size** () const
- const char \* **getProperty** (const std::string &name) const  
*Looks up the value for the given property.*
- std::string **getProperty** (const std::string &name, const std::string &defaultValue) const  
*Looks up the value for the given property.*
- void **setProperty** (const std::string &name, const std::string &value)  
*Sets the value for a given property.*
- bool **hasProperty** (const std::string &name) const  
*Check to see if the Property exists in the set.*
- void **remove** (const std::string &name)  
*Removes the property with the given name.*
- std::vector< std::pair< std::string, std::string > > **toArray** () const  
*Method that serializes the contents of the property map to an array.*
- void **copy** (const **Properties** &source)  
*Copies the contents of the given properties object to this one, if the given **Properties** (p. 2657) instance in NULL then this **List** (p. 1984) is not modified.*
- **Properties** \* **clone** () const  
*Clones this object.*
- void **clear** ()  
*Clears all properties from the map.*
- bool **equals** (const **Properties** &source) const  
*Test whether two **Properties** (p. 2657) objects are equivalent.*
- std::string **toString** () const

*Formats the contents of the **Properties** (p. 2657) Object into a string that can be logged, etc.*

- void **load** (decaf::io::InputStream \*stream) throw ( decaf::io::IOException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )

*Reads a property list (key and element pairs) from the input byte stream.*

- void **load** (decaf::io::Reader \*reader) throw ( decaf::io::IOException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )

*Reads a property list (key and element pairs) from the input character stream in a simple line-oriented format.*

- void **store** (decaf::io::OutputStream \*out, const std::string &comment) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException )

*Writes this property list (key and element pairs) in this **Properties** (p. 2657) table to the output stream in a format suitable for loading into a **Properties** (p. 2657) table using the load(InputStream) method.*

- void **store** (decaf::io::Writer \*writer, const std::string &comments) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException )

*Writes this property list (key and element pairs) in this **Properties** (p. 2657) table to the output character stream in a format that can be read by the load(Reader) method.*

## Protected Attributes

- std::auto\_ptr< **Properties** > **defaults**

*Default list used to answer for any keys not found in the properties list, can be filled in by another implementation of this class.*

### 6.549.1 Detailed Description

Java-like properties class for mapping string names to string values. The **Properties** (p. 2657) list contains a key value pair of properties that can be loaded and stored to a stream. Each **Properties** (p. 2657) instance can contain an internal **Properties** (p. 2657) list that contains default values for keys not found in the **Properties** (p. 2657) **List** (p. 1984).

The **Properties** (p. 2657) list if a Thread Safe class, it can be shared amongst objects in multiple threads without the need for additional synchronization.

**Since:**

1.0

## 6.549.2 Constructor & Destructor Documentation

**6.549.2.1** `decaf::util::Properties::Properties ()`

**6.549.2.2** `decaf::util::Properties::Properties (const Properties & src)`

**6.549.2.3** `virtual decaf::util::Properties::~~Properties ()` [virtual]

## 6.549.3 Member Function Documentation

**6.549.3.1** `void decaf::util::Properties::clear ()`

Clears all properties from the map.

**6.549.3.2** `Properties* decaf::util::Properties::clone () const`

Clones this object.

### Returns:

a replica of this object.

**6.549.3.3** `void decaf::util::Properties::copy (const Properties & source)`

Copies the contents of the given properties object to this one, if the given **Properties** (p. 2657) instance is NULL then this **List** (p. 1984) is not modified.

### Parameters:

*source* The source properties object.

**6.549.3.4** `bool decaf::util::Properties::equals (const Properties & source) const`

Test whether two **Properties** (p. 2657) objects are equivalent. Two **Properties** (p. 2657) Objects are considered equivalent when they each contain the same number of elements and each key / value pair contained within the two are equal.

This comparison does not check the contents of the Defaults instance.

### Parameters:

*source* The **Properties** (p. 2657) object to compare this instance to.

### Returns:

true if the contents of the two **Properties** (p. 2657) objects are the same.

**6.549.3.5** `std::string decaf::util::Properties::getProperty (const std::string & name, const std::string & default Value) const`

Looks up the value for the given property.

**Parameters:**

*name* the name of the property to be looked up.

*defaultValue* The value to be returned if the given property does not exist.

**Returns:**

The value of the property specified by *name*, if it exists, otherwise the *defaultValue*.

**6.549.3.6    `const char* decaf::util::Properties::getProperty (const std::string & name) const`**

Looks up the value for the given property.

**Parameters:**

*name* The name of the property to be looked up.

**Returns:**

the value of the property with the given name, if it exists. If it does not exist, returns NULL.

Referenced by `decaf::util::logging::LogManager::getProperty()`.

**6.549.3.7    `bool decaf::util::Properties::hasProperty (const std::string & name) const`**

Check to see if the Property exists in the set.

**Parameters:**

*name* - property name to check for in this properties set.

**Returns:**

true if property exists, false otherwise.

**6.549.3.8    `bool decaf::util::Properties::isEmpty () const`**

Returns true if the properties object is empty.

**Returns:**

true if empty

**6.549.3.9    `void decaf::util::Properties::load (decaf::io::Reader * reader) throw ( decaf::io::IOException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )`**

Reads a property list (key and element pairs) from the input character stream in a simple line-oriented format. **Properties** (p. 2657) are processed in terms of lines. There are two kinds of line, natural lines and logical lines. A natural line is defined as a line of characters that is terminated either by a set of line terminator characters (



or or

) or by the end of the stream. A natural line may be either a blank line, a comment line, or hold all or some of a key-element pair. A logical line holds all the data of a key-element pair, which may be spread out across several adjacent natural lines by escaping the line terminator sequence with a backslash character `\`. Note that a comment line cannot be extended in this manner; every natural line that is a comment must have its own comment indicator, as described below. Lines are read from input until the end of the stream is reached.

A natural line that contains only white space characters is considered blank and is ignored. A comment line has an ASCII `'#'` or `'!'` as its first non-white space character; comment lines are also ignored and do not encode key-element information. In addition to line terminators, this format considers the characters space (`' '`), tab (`'\t'`), and form feed (`'\f'`) to be white space.

If a logical line is spread across several natural lines, the backslash escaping the line terminator sequence, the line terminator sequence, and any white space at the start of the following line have no affect on the key or element values. The remainder of the discussion of key and element parsing (when loading) will assume all the characters constituting the key and element appear on a single natural line after line continuation characters have been removed. Note that it is not sufficient to only examine the character preceding a line terminator sequence to decide if the line terminator is escaped; there must be an odd number of contiguous backslashes for the line terminator to be escaped. Since the input is processed from left to right, a non-zero even number of  $2n$  contiguous backslashes before a line terminator (or elsewhere) encodes  $n$  backslashes after escape processing.

The key contains all of the characters in the line starting with the first non-white space character and up to, but not including, the first unescaped `'='`, `':'`, or white space character other than a line terminator. All of these key termination characters may be included in the key by escaping them with a preceding backslash character; for example,

```
\: \=
```

would be the two-character key `":="`. Line terminator characters can be included using and

escape sequences. Any white space after the key is skipped; if the first non-white space character after the key is `'='` or `':'`, then it is ignored and any white space characters after it are also skipped. All remaining characters on the line become part of the associated element string; if there are no remaining characters, the element is the empty string `""`. Once the raw character sequences constituting the key and element are identified, escape processing is performed as described above.

As an example, each of the following three lines specifies the key `"Truth"` and the associated element value `"Beauty"`:

```
Truth = Beauty Truth:Beauty Truth :Beauty
```

As another example, the following three lines specify a single property:

```
fruits apple, banana, pear, \ cantaloupe, watermelon, \ kiwi, mango
```

The key is `"fruits"` and the associated element is: `"apple, banana, pear, cantaloupe, watermelon, kiwi, mango"`

Note that a space appears before each `\` so that a space will appear after each comma in the final result; the `\`, line terminator, and leading white space on the continuation line are merely discarded and are not replaced by one or more other characters.

As a third example, the line:

```
cheeses
```

specifies that the key is `"cheeses"` and the associated element is the empty string `""`.

Characters in keys and elements can be represented in escape sequences similar to those used

for character and string literals (see §3.3 and §3.10.6 of the Java Language Specification). The differences from the character escape sequences and Unicode escapes used for characters and strings are:

- Octal escapes are not recognized.
- The character sequence **does** not represent a backspace character.
- The method does not treat a backslash character, `\`, before a non-valid escape character as an error; the backslash is silently dropped. For example, in a C++ string the sequence `"\z"` would cause a compile time error. In contrast, this method silently drops the backslash. Therefore, this method treats the two character sequence `"\b"` as equivalent to the single character `'b'`.
- Escapes are not necessary for single and double quotes; however, by the rule above, single and double quote characters preceded by a backslash still yield single and double quote characters, respectively.

This method does not close the Reader upon its return.

#### Parameters:

*reader* The Reader that provides an character stream as input.

#### Exceptions:

*IOException* if there is an error while reading from the stream.

*IllegalArgumentException* if malformed data is found while reading the properties.

*NullPointerException* if the passed stream is Null.

**6.549.3.10** `void decaf::util::Properties::load (decaf::io::InputStream  
* stream) throw ( decaf::io::IOException, de-  
caf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::NullPointerException )`

Reads a property list (key and element pairs) from the input byte stream. The input stream is in a simple line-oriented format as specified in `load(Reader)` and is assumed to use the ISO 8859-1 character encoding.

This method does not close the stream upon its return.

#### Parameters:

*stream* The stream to read the properties data from.

#### Exceptions:

*IOException* if there is an error while reading from the stream.

*IllegalArgumentException* if malformed data is found while reading the properties.

*NullPointerException* if the passed stream is Null.

**6.549.3.11 Properties& decaf::util::Properties::operator= (const Properties & *src*)**

Assignment Operator.

**Parameters:**

*src* The **Properties** (p. 2657) list to copy to this **List** (p. 1984).

**Returns:**

a reference to this **List** (p. 1984) for use in chaining.

**6.549.3.12 void decaf::util::Properties::remove (const std::string & *name*)**

Removes the property with the given name.

**Parameters:**

*name* the name of the property to remove.

**6.549.3.13 void decaf::util::Properties::setProperty (const std::string & *name*,  
const std::string & *value*)**

Sets the value for a given property. If the property already exists, overwrites the value.

**Parameters:**

*name* The name of the value to be written.

*value* The value to be written.

**6.549.3.14 std::size\_t decaf::util::Properties::size () const****Returns:**

The number of **Properties** (p. 2657) in this **Properties** (p. 2657) Object.

**6.549.3.15 void decaf::util::Properties::store (decaf::io::Writer \* *writer*,  
const std::string & *comments*) throw ( decaf::io::IOException,  
decaf::lang::exceptions::NullPointerException )**

Writes this property list (key and element pairs) in this **Properties** (p. 2657) table to the output character stream in a format that can be read by the load(Reader) method. **Properties** (p. 2657) from the defaults table of this **Properties** (p. 2657) table (if any) are not written out by this method.

If the comments argument is not empty, then an ASCII # character, the comments string, and a line separator are first written to the output stream. Thus, the comments can serve as an identifying comment. Any one of a line feed (

'), a carriage return ("), or a carriage return followed immediately by a line feed in comments is replaced by a line separator generated by the Writer and if the next character in comments is not character # or character ! then an ASCII # is written out after that line separator.

Next, a comment line is always written, consisting of an ASCII # character, the current date and time (as if produced by the toString method of **Date** (p.1467) for the current time), and a line separator as generated by the Writer.

Then every entry in this **Properties** (p.2657) table is written out, one per line. For each entry the key string is written, then an ASCII =, then the associated element string. For the key, all space characters are written with a preceding \ character. For the element, leading space characters, but not embedded or trailing space characters, are written with a preceding \ character. The key and element characters #, !, =, and : are written with a preceding backslash to ensure that they are properly loaded.

After the entries have been written, the output stream is flushed. The output stream remains open after this method returns.

#### Parameters:

- writer* The Writer instance to use to output the properties.
- comments* A description of these properties that is written before writing the properties.

#### Exceptions:

- IOException* if there is an error while writing from the stream.
- NullPointerException* if the passed stream is Null.

**6.549.3.16** `void decaf::util::Properties::store (decaf::io::OutputStream * out,  
const std::string & comment) throw ( decaf::io::IOException,  
decaf::lang::exceptions::NullPointerException )`

Writes this property list (key and element pairs) in this **Properties** (p.2657) table to the output stream in a format suitable for loading into a **Properties** (p.2657) table using the load(InputStream) method. **Properties** (p.2657) from the defaults table of this **Properties** (p.2657) table (if any) are not written out by this method.

This method outputs the comments, properties keys and values in the same format as specified in store(Writer), with the following differences:

- The stream is written using the ISO 8859-1 character encoding.
- Characters not in Latin-1 in the comments are written as for their appropriate unicode hexadecimal value xxxx.
- Characters less than and characters greater than in property keys or values are written as for the appropriate hexadecimal value xxxx.

After the entries have been written, the output stream is flushed. The output stream remains open after this method returns.

#### Parameters:

- out* The OutputStream instance to write the properties to.
- comment* A description of these properties that is written to the output stream.

#### Exceptions:

- IOException* if there is an error while writing from the stream.
- NullPointerException* if the passed stream is Null.

**6.549.3.17** `std::vector< std::pair< std::string, std::string > >  
decaf::util::Properties::toArray () const`

Method that serializes the contents of the property map to an array.

**Returns:**

list of pairs where the first is the name and the second is the value.

**6.549.3.18** `std::string decaf::util::Properties::toString () const`

Formats the contents of the **Properties** (p. 2657) Object into a string that can be logged, etc.

**Returns:**

string value of this object.

**6.549.4 Field Documentation****6.549.4.1** `std::auto_ptr<Properties> decaf::util::Properties::defaults` [protected]

Default list used to answer for any keys not found in the properties list, can be filled in by another implementation of this class.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Properties.h`

## 6.550 decaf::util::logging::PropertiesChangeListener Class Reference

Defines the interface that classes can use to listen for change events on **Properties** (p. 2657).

```
#include <src/main/decaf/util/logging/PropertiesChangeListener.h>
```

### Public Member Functions

- virtual **~PropertiesChangeListener** ()
- virtual void **onPropertyChanged** (const std::string &name, const std::string &oldValue, const std::string &newValue)=0

*Change Event, called when a property is changed.*

#### 6.550.1 Detailed Description

Defines the interface that classes can use to listen for change events on **Properties** (p. 2657).

#### 6.550.2 Constructor & Destructor Documentation

- 6.550.2.1 virtual  
decaf::util::logging::PropertiesChangeListener::~~PropertiesChangeListener  
() [inline, virtual]

#### 6.550.3 Member Function Documentation

- 6.550.3.1 virtual void de-  
caf::util::logging::PropertiesChangeListener::onPropertyChanged (const  
std::string & *name*, const std::string & *oldValue*, const std::string &  
*newValue*) [pure virtual]

Change Event, called when a property is changed.

#### Parameters:

- name* - Name of the Property  
*oldValue* - Old Value of the Property  
*newValue* - New Value of the Property

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**PropertiesChangeListener.h**

## 6.551 decaf::net::ProtocolException Class Reference

#include <src/main/decaf/net/ProtocolException.h> Inheritance diagram for decaf::net::ProtocolException:

### Public Member Functions

- **ProtocolException** () throw ()  
*Default Constructor.*
- **ProtocolException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **ProtocolException** (const **ProtocolException** &ex) throw ()  
*Copy Constructor.*
- **ProtocolException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **ProtocolException** (const std::exception \*cause) throw ()  
*Constructor.*
- **ProtocolException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **ProtocolException** \* clone () const  
*Clones this exception.*
- virtual ~**ProtocolException** () throw ()

### 6.551.1 Constructor & Destructor Documentation

#### 6.551.1.1 decaf::net::ProtocolException::ProtocolException () throw () [inline]

Default Constructor.

#### 6.551.1.2 decaf::net::ProtocolException::ProtocolException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

### 6.551.1.3 `decaf::net::ProtocolException::ProtocolException (const ProtocolException & ex) throw ()` [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

### 6.551.1.4 `decaf::net::ProtocolException::ProtocolException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.551.1.5 `decaf::net::ProtocolException::ProtocolException (const std::exception * cause) throw ()` [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.551.1.6 `decaf::net::ProtocolException::ProtocolException (const char * file, const int lineNumber, const char * msg, ...) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message



**6.551.1.7**    `virtual decaf::net::ProtocolException::~~ProtocolException () throw ()`  
                  [inline, virtual]

## 6.551.2 Member Function Documentation

**6.551.2.1**    `virtual ProtocolException* decaf::net::ProtocolException::clone () const`  
                  [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/ProtocolException.h`

## 6.552 decaf::security::PublicKey Class Reference

A public key.

`#include <src/main/decaf/security/PublicKey.h>`  
Inheritance diagram for decaf::security::PublicKey:

### Public Member Functions

- virtual `~PublicKey()`

#### 6.552.1 Detailed Description

A public key. This interface contains no methods or constants. It merely serves to group (and provide type safety for) all public key interfaces.

#### 6.552.2 Constructor & Destructor Documentation

##### 6.552.2.1 virtual `decaf::security::PublicKey::~~PublicKey()` [inline, virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/security/PublicKey.h`

## 6.553 decaf::util::Queue< E > Class Template Reference

A kind of collection provides advanced operations than other basic collections, such as insertion, extraction, and inspection.

#include <src/main/decaf/util/Queue.h> Inheritance diagram for decaf::util::Queue< E >:

### Public Member Functions

- virtual **~Queue** ()
- virtual bool **offer** (const E &value)=0 throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException )  
*Inserts the specified element into the queue provided that the condition allows such an operation.*
- virtual bool **poll** (E &result)=0  
*Gets and removes the element in the head of the queue.*
- virtual E **remove** ()=0 throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets and removes the element in the head of the queue.*
- virtual bool **peek** (E &result) const =0  
*Gets but not removes the element in the head of the queue.*
- virtual E **element** () const =0 throw ( decaf::lang::exceptions::NoSuchElementException )  
*Gets but not removes the element in the head of the queue.*

### 6.553.1 Detailed Description

**template<typename E> class decaf::util::Queue< E >**

A kind of collection provides advanced operations than other basic collections, such as insertion, extraction, and inspection. Generally, a queue orders its elements by means of first-in-first-out. While priority queue orders its elements according to a comparator specified or the elements' natural order. Furthermore, a stack orders its elements last-in-first out.

**Queue** (p. 2671) does not provide blocking queue methods, which will block until the operation of the method is allowed. BlockingQueue interface defines such methods.

Unlike the Java **Queue** (p. 2671) interface the methods of this class cannot return null to indicate that a **Queue** (p. 2671) is empty since null has no meaning for elements such as classes, structs and primitive types and cannot be used in a meaningful way to check for an empty queue. Methods that would have returned null in the Java **Queue** (p. 2671) interface have been altered to return a boolean value indicating if the operation succeeded and take single argument that is a reference to the location where the returned value is to be assigned. This implies that elements in the **Queue** (p. 2671) must be *assignable* in order to utilize these methods.

**Since:**

1.0

## 6.553.2 Constructor & Destructor Documentation

**6.553.2.1** `template<typename E > virtual decaf::util::Queue< E >::~~Queue ()`  
`[inline, virtual]`

## 6.553.3 Member Function Documentation

**6.553.3.1** `template<typename E > virtual E decaf::util::Queue< E >::element ()`  
`const throw ( decaf::lang::exceptions::NoSuchElementException ) [pure`  
`virtual]`

Gets but not removes the element in the head of the queue. Throws a `NoSuchElementException` if there is no element in the queue.

### Returns:

the element in the head of the queue.

### Exceptions:

***NoSuchElementException*** if there is no element in the queue.

Implemented in `decaf::util::AbstractQueue< E >` (p. 164).

**6.553.3.2** `template<typename E > virtual bool decaf::util::Queue< E >::offer`  
`(const E & value) throw ( decaf::lang::exceptions::NullPointerException,`  
`decaf::lang::exceptions::IllegalArgumentException ) [pure virtual]`

Inserts the specified element into the queue provided that the condition allows such an operation. The method is generally preferable to the `collection.add(E)`, since the latter might throw an exception if the operation fails.

### Parameters:

*value* the specified element to insert into the queue.

### Returns:

true if the operation succeeds and false if it fails.

### Exceptions:

***NullPointerException*** if the **Queue** (p. 2671) implementation does not allow Null values to be inserted into the **Queue** (p. 2671).

***IllegalArgumentException*** if some property of the specified element prevents it from being added to this queue

Implemented in `decaf::util::PriorityQueue< E >` (p. 2575).

Referenced by `decaf::util::AbstractQueue< E >::add()`.

**6.553.3.3** `template<typename E > virtual bool decaf::util::Queue< E >::peek (E &`  
`result) const [pure virtual]`

Gets but not removes the element in the head of the queue. The result if successful is assigned to the result parameter.

**Parameters:**

*result* Reference to an instance of the contained type to assigned the removed value to.

**Returns:**

true if the element at the head of the queue was removed and assigned to the result parameter.

Implemented in **decaf::util::PriorityQueue< E >** (p. 2576).

Referenced by **decaf::util::AbstractQueue< E >::element()**.

### 6.553.3.4 **template<typename E > virtual bool decaf::util::Queue< E >::poll (E & *result*)** [pure virtual]

Gets and removes the element in the head of the queue. If the operation succeeds the value of the element at the head of the **Queue** (p. 2671) is assigned to the result parameter and the method returns true. If the operation fails the method returns false and the value of the result parameter is undefined.

**Parameters:**

*result* Reference to an instance of the contained type to assigned the removed value to.

**Returns:**

true if the element at the head of the queue was removed and assigned to the result parameter.

Implemented in **decaf::util::PriorityQueue< E >** (p. 2576).

Referenced by **decaf::util::AbstractQueue< E >::clear()**, and **decaf::util::AbstractQueue< E >::remove()**.

### 6.553.3.5 **template<typename E > virtual E decaf::util::Queue< E >::remove ()** **throw ( decaf::lang::exceptions::NoSuchElementException )** [pure virtual]

Gets and removes the element in the head of the queue. Throws a **NoSuchElementException** if there is no element in the queue.

**Returns:**

the element in the head of the queue.

**Exceptions:**

**NoSuchElementException** if there is no element in the queue.

Implemented in **decaf::util::AbstractQueue< E >** (p. 164), and **decaf::util::PriorityQueue< E >** (p. 2577).

The documentation for this class was generated from the following file:

- **src/main/decaf/util/Queue.h**

## 6.554 cms::Queue Class Reference

An interface encapsulating a provider-specific queue name.

#include <src/main/cms/Queue.h> Inheritance diagram for cms::Queue:

### Public Member Functions

- virtual `~Queue ()`
- virtual `std::string getQueueName () const =0 throw ( CMSEException )`  
*Gets the name of this queue.*

#### 6.554.1 Detailed Description

An interface encapsulating a provider-specific queue name. Messages sent to a **Queue** (p. 2674) are sent to a Single Subscriber on that **Queue** (p. 2674) **Destination** (p. 1480). This allows for Queues to be used as load balances implementing a SEDA based architecture. The length of time that a Provider will store a **Message** (p. 2163) in a **Queue** (p. 2674) is not defined by the CMS API, consult your Provider documentation for this information.

**Since:**

1.0

#### 6.554.2 Constructor & Destructor Documentation

**6.554.2.1** virtual `cms::Queue::~Queue ()` [inline, virtual]

#### 6.554.3 Member Function Documentation

**6.554.3.1** virtual `std::string cms::Queue::getQueueName () const throw ( CMSEException )` [pure virtual]

Gets the name of this queue.

**Returns:**

The queue name.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in `activemq::commands::ActiveMQQueue` (p. 422).

The documentation for this class was generated from the following file:

- `src/main/cms/Queue.h`

## 6.555 cms::QueueBrowser Class Reference

This class implements in interface for browsing the messages in a **Queue** (p.2674) without removing them.

#include <src/main/cms/QueueBrowser.h> Inheritance diagram for cms::QueueBrowser:

### Public Member Functions

- virtual **~QueueBrowser** ()
- virtual const **Queue** \* **getQueue** () const =0 throw ( cms::CMSEException )
- virtual std::string **getMessageSelector** () const =0 throw ( cms::CMSEException )
- virtual std::vector< const **cms::Message** \* > **getEnumeration** () const =0 throw ( cms::CMSEException )

*Gets an enumeration for browsing the current queue messages in the order they would be received.*

### 6.555.1 Detailed Description

This class implements in interface for browsing the messages in a **Queue** (p.2674) without removing them. The **getEnumeration** method of this class returns a static snapshot of the **Queue** (p.2674) at the time the method is called. Since new Message's can be arriving and old Message's could expire the client should periodically refresh its view by calling **getEnumeration** again.

Since:

1.1

### 6.555.2 Constructor & Destructor Documentation

**6.555.2.1** virtual cms::QueueBrowser::~~QueueBrowser () [inline, virtual]

### 6.555.3 Member Function Documentation

**6.555.3.1** virtual std::vector<const cms::Message\*>  
cms::QueueBrowser::getEnumeration () const throw (  
cms::CMSEException ) [pure virtual]

Gets an enumeration for browsing the current queue messages in the order they would be received. The enumeration returned is a static view of the **Queue** (p.2674) and is not updated as new Messages arrive, the client should refresh its enumeration by calling this method again.

**Returns:**

an STL vector for browsing the messages.

**Exceptions:**

*CMSEException* (p. 1031) if an internal error occurs.

**6.555.3.2** `virtual std::string cms::QueueBrowser::getMessageSelector () const  
throw ( cms::CMSEException ) [pure virtual]`

**Returns:**

the MessageSelector that is used on when this browser was created or empty string if no selector was present.

**Exceptions:**

*CMSEException* (p. 1031) if an internal error occurs.

**6.555.3.3** `virtual const Queue* cms::QueueBrowser::getQueue () const throw (  
cms::CMSEException ) [pure virtual]`

**Returns:**

the **Queue** (p. 2674) that this browser is listening on.

**Exceptions:**

*CMSEException* (p. 1031) if an internal error occurs.

The documentation for this class was generated from the following file:

- `src/main/cms/QueueBrowser.h`



## 6.556 decaf::util::Random Class Reference

**Random** (p. 2677) Value Generator which is used to generate a stream of pseudorandom numbers.

```
#include <src/main/decaf/util/Random.h>
```

### Public Member Functions

- **Random** ()  
*Construct a random generator with the current time of day in milliseconds as the initial state.*
- **Random** (unsigned long long seed)  
*Construct a random generator with the given **seed** as the initial state.*
- bool **nextBoolean** ()  
*Answers the next pseudo-random, uniformly distributed boolean value generated by this generator.*
- void **nextBytes** (std::vector< unsigned char > &buf)  
*Modifies the byte array by a random sequence of bytes generated by this random number generator.*
- double **nextDouble** ()  
*Generates a normally distributed random double number between 0.0 inclusively and 1.0 exclusively.*
- float **nextFloat** ()  
*Generates a normally distributed random float number between 0.0 inclusively and 1.0 exclusively.*
- double **nextGaussian** ()  
*Pseudo-randomly generates (approximately) a normally distributed **double** value with mean 0.0 and a standard deviation value of 1.0 using the polar method of G.*
- int **nextInt** ()  
*Generates a uniformly distributed 32-bit **int** value from the this random number sequence.*
- int **nextInt** (int n) throw ( lang::exceptions::IllegalArgumentException )  
*Returns to the caller a new pseudo-random integer value which is uniformly distributed between 0 (inclusively) and the value of **n** (exclusively).*
- long long **nextLong** ()  
*Generates a uniformly distributed 64-bit **int** value from the this random number sequence.*
- void **setSeed** (unsigned long long seed)  
*Modifies the seed using linear congruential formula presented in *The Art of Computer Programming, Volume 2, Section 3.2.1.**

### Protected Member Functions

- virtual int **next** (int bits)  
*Answers a pseudo-random uniformly distributed **int** value of the number of bits specified by the argument **bits** as described by Donald E.*

### 6.556.1 Detailed Description

**Random** (p. 2677) Value Generator which is used to generate a stream of pseudorandom numbers. The algorithms implemented by class **Random** (p. 2677) use a protected utility method that on each invocation can supply up to 32 pseudorandomly generated bits.

Since:

1.0

### 6.556.2 Constructor & Destructor Documentation

#### 6.556.2.1 decaf::util::Random::Random ()

Construct a random generator with the current time of day in milliseconds as the initial state.

See also:

`setSeed` (p. 2681)

#### 6.556.2.2 decaf::util::Random::Random (unsigned long long *seed*)

Construct a random generator with the given *seed* as the initial state.

Parameters:

*seed* the seed that will determine the initial state of this random number generator

See also:

`setSeed` (p. 2681)

### 6.556.3 Member Function Documentation

#### 6.556.3.1 virtual int decaf::util::Random::next (int *bits*) [protected, virtual]

Answers a pseudo-random uniformly distributed `int` value of the number of bits specified by the argument *bits* as described by Donald E. Knuth in *The Art of Computer Programming, Volume 2: Seminumerical Algorithms*, section 3.2.1.

Returns:

`int` a pseudo-random generated `int` number

Parameters:

*bits* number of bits of the returned value

See also:

`nextBytes` (p. 2679)

`nextDouble` (p. 2679)

`nextFloat` (p. 2679)

`nextInt()` (p. 2680)

**nextInt(int)** (p. 2680)  
**nextGaussian** (p. 2680)  
**nextLong** (p. 2680)

### 6.556.3.2 bool decaf::util::Random::nextBoolean ()

Answers the next pseudo-random, uniformly distributed boolean value generated by this generator.

**Returns:**

boolean a pseudo-random, uniformly distributed boolean value

### 6.556.3.3 void decaf::util::Random::nextBytes (std::vector< unsigned char > & buf)

Modifies the byte array by a random sequence of bytes generated by this random number generator.

**Parameters:**

*buf* non-null array to contain the new random bytes

**See also:**

**next** (p. 2678)

### 6.556.3.4 double decaf::util::Random::nextDouble ()

Generates a normally distributed random double number between 0.0 inclusively and 1.0 exclusively.

**Returns:**

double

**See also:**

**nextFloat** (p. 2679)

### 6.556.3.5 float decaf::util::Random::nextFloat ()

Generates a normally distributed random float number between 0.0 inclusively and 1.0 exclusively.

**Returns:**

float a random float number between 0.0 and 1.0

**See also:**

**nextDouble** (p. 2679)

**6.556.3.6 double decaf::util::Random::nextGaussian ()**

Pseudo-randomly generates (approximately) a normally distributed `double` value with mean 0.0 and a standard deviation value of 1.0 using the *polar method* of G. E. P. Box, M. E. Muller, and G. Marsaglia, as described by Donald E. Knuth in *The Art of Computer Programming, Volume 2: Seminumerical Algorithms*, section 3.4.1, subsection C, algorithm P

**Returns:**

`double`

**See also:**

`nextDouble` (p. 2679)

**6.556.3.7 int decaf::util::Random::nextInt (int n) throw (lang::exceptions::IllegalArgumentException )**

Returns to the caller a new pseudo-random integer value which is uniformly distributed between 0 (inclusively) and the value of `n` (exclusively).

**Returns:**

`int`

**Parameters:**

`n` `int`

**Exceptions:**

*IllegalArgumentException*

**6.556.3.8 int decaf::util::Random::nextInt ()**

Generates a uniformly distributed 32-bit `int` value from the this random number sequence.

**Returns:**

`int` uniformly distributed `int` value

**See also:**

`next` (p. 2678)

`nextLong` (p. 2680)

**6.556.3.9 long long decaf::util::Random::nextLong ()**

Generates a uniformly distributed 64-bit `int` value from the this random number sequence.

**Returns:**

64-bit `int` random number

See also:

`next` (p. 2678)  
`nextInt()` (p. 2680)  
`nextInt(int)` (p. 2680)

#### 6.556.3.10 void decaf::util::Random::setSeed (unsigned long long *seed*)

Modifies the seed using linear congruential formula presented in *The Art of Computer Programming, Volume 2*, Section 3.2.1.

##### Parameters:

*seed* the seed that alters the state of the random number generator

See also:

`next` (p. 2678)  
`Random()` (p. 2678)  
`Random(long)`

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Random.h`

## 6.557 activemq::transport::inactivity::ReadChecker Class Reference

Runnable class that is used by the {}.

#include <src/main/activemq/transport/inactivity/ReadChecker.h>Inheritance diagram for activemq::transport::inactivity::ReadChecker:

### Public Member Functions

- **ReadChecker** (**InactivityMonitor** \*parent)
- virtual ~**ReadChecker** ()
- virtual void **run** ()

*Run method - called by the Thread class in the context of the thread.*

### 6.557.1 Detailed Description

Runnable class that is used by the {}.

See also:

**InactivityMonitor** (p. 1733)} class the check for timeouts related to **transport** (p. 79) reads.

Since:

3.1

### 6.557.2 Constructor & Destructor Documentation

**6.557.2.1** **activemq::transport::inactivity::ReadChecker::ReadChecker** (**InactivityMonitor** \* *parent*)

**6.557.2.2** **virtual activemq::transport::inactivity::ReadChecker::~~ReadChecker** ()  
[virtual]

### 6.557.3 Member Function Documentation

**6.557.3.1** **virtual void activemq::transport::inactivity::ReadChecker::run** ()  
[virtual]

Run method - called by the Thread class in the context of the thread.

Implements **decaf::lang::Runnable** (p. 2816).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/inactivity/**ReadChecker.h**

## 6.558 decaf::io::Reader Class Reference

```
#include <src/main/decaf/io/Reader.h>
```

### Public Member Functions

- virtual **~Reader** ()
- virtual void **setInputStream** (InputStream \*is)=0  
*Sets the target input stream.*
- virtual **InputStream \* getInputStream** ()=0  
*Gets the target input stream.*
- virtual std::size\_t **read** (unsigned char \*buffer, std::size\_t count)=0 throw ( IOException, lang::exceptions::NullPointerException )  
*Attempts to read an array of bytes from the stream.*
- virtual unsigned char **readByte** ()=0 throw ( IOException )  
*Attempts to read a byte from the input stream.*

### 6.558.1 Constructor & Destructor Documentation

6.558.1.1 virtual decaf::io::Reader::~~Reader () [inline, virtual]

### 6.558.2 Member Function Documentation

6.558.2.1 virtual InputStream\* decaf::io::Reader::getInputStream () [pure virtual]

Gets the target input stream.

6.558.2.2 virtual std::size\_t decaf::io::Reader::read (unsigned char \* *buffer*, std::size\_t *count*) throw ( IOException, lang::exceptions::NullPointerException ) [pure virtual]

Attempts to read an array of bytes from the stream.

#### Parameters:

*buffer* The target byte buffer.  
*count* The number of bytes to read.

#### Returns:

The number of bytes read.

#### Exceptions:

*IOException* (p. 1820) thrown if an error occurs.

**6.558.2.3**    **virtual unsigned char decaf::io::Reader::readByte () throw ( IOException )**    [pure virtual]

Attempts to read a byte from the input stream.

**Returns:**

The byte.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

**6.558.2.4**    **virtual void decaf::io::Reader::setInputStream (InputStream \* is)**    [pure virtual]

Sets the target input stream.

The documentation for this class was generated from the following file:

- src/main/decaf/io/**Reader.h**



## 6.559 decaf::nio::ReadOnlyBufferException Class Reference

#include <src/main/decaf/nio/ReadOnlyBufferException.h> Inheritance diagram for decaf::nio::ReadOnlyBufferException:

### Public Member Functions

- **ReadOnlyBufferException** () throw ()  
*Default Constructor.*
- **ReadOnlyBufferException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **ReadOnlyBufferException** (const ReadOnlyBufferException &ex) throw ()  
*Copy Constructor.*
- **ReadOnlyBufferException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **ReadOnlyBufferException** (const std::exception \*cause) throw ()  
*Constructor.*
- **ReadOnlyBufferException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **ReadOnlyBufferException \* clone** () const  
*Clones this exception.*
- virtual ~**ReadOnlyBufferException** () throw ()

### 6.559.1 Constructor & Destructor Documentation

#### 6.559.1.1 decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException () throw () [inline]

Default Constructor.

#### 6.559.1.2 decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException (const lang::Exception & ex) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* the exception to copy

### 6.559.1.3 `decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException (const ReadOnlyBufferException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* the exception to copy, which is an instance of this type

### 6.559.1.4 `decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.559.1.5 `decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.559.1.6 `decaf::nio::ReadOnlyBufferException::ReadOnlyBufferException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor.

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.559.1.7** virtual decaf::nio::ReadOnlyBufferException::~~ReadOnlyBufferException  
( ) throw ( ) [inline, virtual]

## 6.559.2 Member Function Documentation

**6.559.2.1** virtual ReadOnlyBufferException\* de-  
caf::nio::ReadOnlyBufferException::clone ( ) const  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

Reimplemented from **decaf::lang::exceptions::UnsupportedOperationException** (p. 3307).

The documentation for this class was generated from the following file:

- src/main/decaf/nio/**ReadOnlyBufferException.h**

## 6.560 decaf::util::concurrent::locks::ReadWriteLock Class Reference

A **ReadWriteLock** (p. 2688) maintains a pair of associated locks, one for read-only operations and one for writing.

```
#include <src/main/decaf/util/concurrent/locks/ReadWriteLock.h>
```

### Public Member Functions

- virtual **~ReadWriteLock** ()
- virtual **Lock & readLock** ()=0  
*Returns the lock used for reading.*
- virtual **Lock & writeLock** ()=0  
*Returns the lock used for writing.*

### 6.560.1 Detailed Description

A **ReadWriteLock** (p. 2688) maintains a pair of associated locks, one for read-only operations and one for writing. The read lock may be held simultaneously by multiple reader threads, so long as there are no writers. The write lock is exclusive.

All **ReadWriteLock** (p. 2688) implementations must guarantee that the memory synchronization effects of writeLock operations (as specified in the **Lock** (p. 2017) interface) also hold with respect to the associated readLock. That is, a thread successfully acquiring the read lock will see all updates made upon previous release of the write lock.

A read-write lock allows for a greater level of concurrency in accessing shared data than that permitted by a mutual exclusion lock. It exploits the fact that while only a single thread at a time (a writer thread) can modify the shared data, in many cases any number of threads can concurrently read the data (hence reader threads). In theory, the increase in concurrency permitted by the use of a read-write lock will lead to performance improvements over the use of a mutual exclusion lock. In practice this increase in concurrency will only be fully realized on a multi-processor, and then only if the access patterns for the shared data are suitable.

Whether or not a read-write lock will improve performance over the use of a mutual exclusion lock depends on the frequency that the data is read compared to being modified, the duration of the read and write operations, and the contention for the data - that is, the number of threads that will try to read or write the data at the same time. For example, a collection that is initially populated with data and thereafter infrequently modified, while being frequently searched (such as a directory of some kind) is an ideal candidate for the use of a read-write lock. However, if updates become frequent then the data spends most of its time being exclusively locked and there is little, if any increase in concurrency. Further, if the read operations are too short the overhead of the read-write lock implementation (which is inherently more complex than a mutual exclusion lock) can dominate the execution cost, particularly as many read-write lock implementations still serialize all threads through a small section of code. Ultimately, only profiling and measurement will establish whether the use of a read-write lock is suitable for your application.

Although the basic operation of a read-write lock is straight-forward, there are many policy decisions that an implementation must make, which may affect the effectiveness of the read-write lock in a given application. Examples of these policies include:

\* Determining whether to grant the read lock or the write lock, when both readers and writers are waiting, at the time that a writer releases the write lock. Writer preference is common, as writes are expected to be short and infrequent. Reader preference is less common as it can lead to lengthy delays for a write if the readers are frequent and long-lived as expected. Fair, or "in-order" implementations are also possible. \* Determining whether readers that request the read lock while a reader is active and a writer is waiting, are granted the read lock. Preference to the reader can delay the writer indefinitely, while preference to the writer can reduce the potential for concurrency. \* Determining whether the locks are reentrant: can a thread with the write lock reacquire it? Can it acquire a read lock while holding the write lock? Is the read lock itself reentrant? \* Can the write lock be downgraded to a read lock without allowing an intervening writer? Can a read lock be upgraded to a write lock, in preference to other waiting readers or writers?

You should consider all of these things when evaluating the suitability of a given implementation for your application.

**Since:**

1.0

## 6.560.2 Constructor & Destructor Documentation

**6.560.2.1** `virtual decaf::util::concurrent::locks::ReadWriteLock::~~ReadWriteLock ()`  
[inline, virtual]

## 6.560.3 Member Function Documentation

**6.560.3.1** `virtual Lock& decaf::util::concurrent::locks::ReadWriteLock::readLock ()`  
[pure virtual]

Returns the lock used for reading.

**Returns:**

the lock used for reading.

**6.560.3.2** `virtual Lock& decaf::util::concurrent::locks::ReadWriteLock::writeLock ()`  
[pure virtual]

Returns the lock used for writing.

**Returns:**

the lock used for writing.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/locks/ReadWriteLock.h`

## 6.561 activemq::cmsutil::CmsTemplate::ReceiveExecutor Class Reference

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate::ReceiveExecutor:

### Public Member Functions

- **ReceiveExecutor** (**CmsTemplate** \*parent, **cms::Destination** \*destination, const std::string &selector, bool noLocal)
- virtual ~**ReceiveExecutor** ()
- virtual void **doInCms** (**cms::Session** \*session) throw (cms::CMSException)  
*Execute any number of operations against the supplied CMS session.*
- virtual **cms::Destination** \* **getDestination** (**cms::Session** \*session AMQCPP\_UNUSED) throw ( cms::CMSException )
- **cms::Message** \* **getMessage** ()

### Protected Attributes

- **cms::Destination** \* destination
- std::string selector
- bool noLocal
- **cms::Message** \* message
- **CmsTemplate** \* parent

### 6.561.1 Constructor & Destructor Documentation

**6.561.1.1** **activemq::cmsutil::CmsTemplate::ReceiveExecutor::ReceiveExecutor** (**CmsTemplate** \* parent, **cms::Destination** \* destination, const std::string & selector, bool noLocal) [inline]

**6.561.1.2** **virtual**  
**activemq::cmsutil::CmsTemplate::ReceiveExecutor::~~ReceiveExecutor** ()  
[inline, virtual]

### 6.561.2 Member Function Documentation

**6.561.2.1** **virtual void** **activemq::cmsutil::CmsTemplate::ReceiveExecutor::doInCms** (**cms::Session** \* session) throw (cms::CMSException) [virtual]

Execute any number of operations against the supplied CMS session.

#### Parameters:

*session* the CMS Session

#### Exceptions:

*cms::CMSException* (p. 1031) if thrown by CMS API methods

Implements `activemq::cmsutil::SessionCallback` (p. 2852).

**6.561.2.2** `virtual cms::Destination* activemq::cmsutil::CmsTemplate::ReceiveExecutor::getDestination (cms::Session *session AMQCPP_UNUSED) throw (cms::CMSException )` [inline, virtual]

**6.561.2.3** `cms::Message* activemq::cmsutil::CmsTemplate::ReceiveExecutor::getMessage ()` [inline]

### 6.561.3 Field Documentation

**6.561.3.1** `cms::Destination* activemq::cmsutil::CmsTemplate::ReceiveExecutor::destination` [protected]

**6.561.3.2** `cms::Message* activemq::cmsutil::CmsTemplate::ReceiveExecutor::message` [protected]

**6.561.3.3** `bool activemq::cmsutil::CmsTemplate::ReceiveExecutor::noLocal` [protected]

**6.561.3.4** `CmsTemplate* activemq::cmsutil::CmsTemplate::ReceiveExecutor::parent` [protected]

**6.561.3.5** `std::string activemq::cmsutil::CmsTemplate::ReceiveExecutor::selector` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/CmsTemplate.h`

## 6.562    `decaf::util::concurrent::locks::ReentrantLock`    Class Reference

A reentrant mutual exclusion **Lock** (p. 2017) with extended capabilities.

#include <src/main/decaf/util/concurrent/locks/ReentrantLock.h> Inheritance diagram for `decaf::util::concurrent::locks::ReentrantLock`:

### Public Member Functions

- **ReentrantLock** ()
- virtual **~ReentrantLock** ()
- virtual void **lock** () throw ( `decaf::lang::exceptions::RuntimeException` )  
*Acquires the lock.*
- virtual void **lockInterruptibly** () throw ( `decaf::lang::exceptions::RuntimeException`, `decaf::lang::exceptions::InterruptedException` )  
*Acquires the lock unless the current thread is interrupted.*
- virtual bool **tryLock** () throw ( `decaf::lang::exceptions::RuntimeException` )  
*Acquires the lock only if it is not held by another thread at the time of invocation.*
- virtual bool **tryLock** (long long time, const **TimeUnit** &unit) throw ( `decaf::lang::exceptions::RuntimeException`, `decaf::lang::exceptions::InterruptedException` )  
*Acquires the lock if it is not held by another thread within the given waiting time and the current thread has not been interrupted.*
- virtual void **unlock** () throw ( `decaf::lang::exceptions::RuntimeException`, `decaf::lang::exceptions::IllegalMonitorStateException` )  
*Attempts to release this lock.*
- virtual **Condition** \* **newCondition** () throw ( `decaf::lang::exceptions::RuntimeException`, `decaf::lang::exceptions::UnsupportedOperationException` )  
*Returns a **Condition** (p. 1118) instance for use with this **Lock** (p. 2017) instance.*
- int **getHoldCount** () const  
*Queries the number of holds on this lock by the current thread.*
- bool **isHeldByCurrentThread** () const  
*Queries if this lock is held by the current thread.*
- bool **isLocked** () const  
*Queries if this lock is held by any thread.*
- bool **isFair** () const  
*Returns true if this lock has fairness set true.*
- std::string **toString** () const  
*Returns a string identifying this lock, as well as its lock state.*



## 6.562.1 Detailed Description

A reentrant mutual exclusion **Lock** (p.2017) with extended capabilities. A **ReentrantLock** (p.2692) is owned by the thread last successfully locking, but not yet unlocking it. A thread invoking lock will return, successfully acquiring the lock, when the lock is not owned by another thread. The method will return immediately if the current thread already owns the lock. This can be checked using methods **isHeldByCurrentThread()** (p.2694), and **getHoldCount()** (p.2693).

The constructor for this class accepts an optional fairness parameter. When set true, under contention, locks favor granting access to the longest-waiting thread. Otherwise this lock does not guarantee any particular access order. Programs using fair locks accessed by many threads may display lower overall throughput (i.e., are slower; often much slower) than those using the default setting, but have smaller variances in times to obtain locks and guarantee lack of starvation. Note however, that fairness of locks does not guarantee fairness of thread scheduling. Thus, one of many threads using a fair lock may obtain it multiple times in succession while other active threads are not progressing and not currently holding the lock. Also note that the untimed tryLock method does not honor the fairness setting. It will succeed if the lock is available even if other threads are waiting.

It is recommended practice to always immediately follow a call to lock with a try block, most typically in a before/after construction such as:

```
class X { private:  
ReentrantLock (p.2692) lock; // ...  
  
public:  
  
void m() { lock.lock(); // block until condition holds  
  
try { // ... method body } finally { lock.unlock() } } }
```

In addition to implementing the **Lock** (p.2017) interface, this class defines methods **isLocked** and **getLockQueueLength**, as well as some associated protected access methods that may be useful for instrumentation and monitoring.

**Since:**

1.0

## 6.562.2 Constructor & Destructor Documentation

**6.562.2.1** decaf::util::concurrent::locks::ReentrantLock::ReentrantLock ()

**6.562.2.2** virtual decaf::util::concurrent::locks::ReentrantLock::~ReentrantLock ()  
[virtual]

## 6.562.3 Member Function Documentation

**6.562.3.1** int decaf::util::concurrent::locks::ReentrantLock::getHoldCount () const

Queries the number of holds on this lock by the current thread. A thread has a hold on a lock for each lock action that is not matched by an unlock action.

The hold count information is typically only used for testing and debugging purposes. For example, if a certain section of code should not be entered with the lock already held then we can assert that fact:

```

class X { private:
ReentrantLock (p. 2692) lock; // ...
public:
void m() { assert( lock.getHoldCount() == 0 ); lock.lock(); try { // ... method body } catch(...)
{ lock.unlock(); } } }

```

**Returns:**

the number of holds on this lock by the current thread, or zero if this lock is not held by the current thread

**6.562.3.2 bool decaf::util::concurrent::locks::ReentrantLock::isFair () const**

Returns true if this lock has fairness set true.

**Returns:**

true if this lock has fairness set true

**6.562.3.3 bool decaf::util::concurrent::locks::ReentrantLock::isHeldByCurrentThread () const**

Queries if this lock is held by the current thread. This method is typically used for debugging and testing. For example, a method that should only be called while a lock is held can assert that this is the case:

```

class X { private: ReentrantLock (p. 2692) lock = new ReentrantLock() (p. 2693); // ...
public: void m() { assert( lock.isHeldByCurrentThread() ); // ... method body } }

```

It can also be used to ensure that a reentrant lock is used in a non-reentrant manner, for example:

```

class X { private: ReentrantLock (p. 2692) lock = new ReentrantLock() (p. 2693); // ...
public: void m() { assert !lock.isHeldByCurrentThread() (p. 2694); lock.lock(); try { // ...
method body } finally { lock.unlock(); } } }

```

**Returns:**

true if current thread holds this lock and false otherwise

**6.562.3.4 bool decaf::util::concurrent::locks::ReentrantLock::isLocked () const**

Queries if this lock is held by any thread. This method is designed for use in monitoring of the system state, not for synchronization control.

**Returns:**

true if any thread holds this lock and false otherwise

**6.562.3.5 virtual void decaf::util::concurrent::locks::ReentrantLock::lock () throw ( decaf::lang::exceptions::RuntimeException ) [virtual]**

Acquires the lock. Acquires the lock if it is not held by another thread and returns immediately, setting the lock hold count to one.

If the current thread already holds the lock then the hold count is incremented by one and the method returns immediately.

If the lock is held by another thread then the current thread becomes disabled for thread scheduling purposes and lies dormant until the lock has been acquired, at which time the lock hold count is set to one.

**Exceptions:**

*RuntimeException* if an error occurs while acquiring the lock.

Implements **decaf::util::concurrent::locks::Lock** (p. 2018).

**6.562.3.6 virtual void decaf::util::concurrent::locks::ReentrantLock::lockInterruptibly () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException ) [virtual]**

Acquires the lock unless the current thread is interrupted. Acquires the lock if it is not held by another thread and returns immediately, setting the lock hold count to one.

If the current thread already holds this lock then the hold count is incremented by one and the method returns immediately.

If the lock is held by another thread then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of two things happens:

\* The lock is acquired by the current thread; or \* Some other thread interrupts the current thread.

If the lock is acquired by the current thread then the lock hold count is set to one.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while acquiring the lock,

then *InterruptedException* is thrown and the current thread's interrupted status is cleared.

In this implementation, as this method is an explicit interruption point, preference is given to responding to the interrupt over normal or reentrant acquisition of the lock.

**Exceptions:**

*RuntimeException* if an error occurs while acquiring the lock.

*InterruptedException* if the current thread is interrupted while acquiring the lock (and interruption of lock acquisition is supported).

Implements **decaf::util::concurrent::locks::Lock** (p. 2019).

**6.562.3.7** `virtual Condition* decaf::util::concurrent::locks::ReentrantLock::newCondition()` `throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::UnsupportedOperationException )` [virtual]

Returns a **Condition** (p. 1118) instance for use with this **Lock** (p. 2017) instance. The returned **Condition** (p. 1118) instance supports the same usages as do the **Mutex** (p. 2385) Class' methods (wait, notify, and notifyAll).

\* If this lock is not held when any of the **Condition** (p. 1118) waiting or signalling methods are called, then an `IllegalMonitorStateException` is thrown. \* When the condition waiting methods are called the lock is released and, before they return, the lock is reacquired and the lock hold count restored to what it was when the method was called. \* If a thread is interrupted while waiting then the wait will terminate, an `InterruptedException` will be thrown, and the thread's interrupted status will be cleared. \* Waiting threads are signaled in FIFO order. \* The ordering of lock reacquisition for threads returning from waiting methods is the same as for threads initially acquiring the lock, which is in the default case not specified, but for fair locks favors those threads that have been waiting the longest.

#### Exceptions:

***RuntimeException*** if an error occurs while creating the **Condition** (p. 1118).

***UnsupportedOperationException*** if this **Lock** (p. 2017) implementation does not support conditions

Implements `decaf::util::concurrent::locks::Lock` (p. 2019).

**6.562.3.8** `std::string decaf::util::concurrent::locks::ReentrantLock::toString()` `const`

Returns a string identifying this lock, as well as its lock state. The state, in brackets, includes either the String "Unlocked" or the String "Locked by" followed by the name of the owning thread.

#### Returns:

a string identifying this lock, as well as its lock state

**6.562.3.9** `virtual bool decaf::util::concurrent::locks::ReentrantLock::tryLock(long long time, const TimeUnit & unit)` `throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::InterruptedException )` [virtual]

Acquires the lock if it is not held by another thread within the given waiting time and the current thread has not been interrupted. Acquires the lock if it is not held by another thread and returns immediately with the value true, setting the lock hold count to one. If this lock has been set to use a fair ordering policy then an available lock will not be acquired if any other threads are waiting for the lock. This is in contrast to the **tryLock()** (p. 2697) method. If you want a timed tryLock that does permit barging on a fair lock then combine the timed and un-timed forms together:

```
if (lock.tryLock() || lock.tryLock(timeout, unit) ) { ... }
```

If the current thread already holds this lock then the hold count is incremented by one and the method returns true.

If the lock is held by another thread then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

\* The lock is acquired by the current thread; or \* Some other thread interrupts the current thread;  
or \* The specified waiting time elapses

If the lock is acquired then the value true is returned and the lock hold count is set to one.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while acquiring the lock,

then InterruptedException is thrown and the current thread's interrupted status is cleared.

If the specified waiting time elapses then the value false is returned. If the time is less than or equal to zero, the method will not wait at all.

In this implementation, as this method is an explicit interruption point, preference is given to responding to the interrupt over normal or reentrant acquisition of the lock, and over reporting the elapse of the waiting time.

#### Parameters:

*time* the maximum time to wait for the lock

*unit* the time unit of the time argument

#### Returns:

true if the lock was acquired and false if the waiting time elapsed before the lock was acquired

#### Exceptions:

*RuntimeException* if an error occurs while acquiring the lock.

*InterruptedException* if the current thread is interrupted while acquiring the lock (and interruption of lock acquisition is supported)

Implements **decaf::util::concurrent::locks::Lock** (p. 2020).

#### 6.562.3.10 virtual bool decaf::util::concurrent::locks::ReentrantLock::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [virtual]

Acquires the lock only if it is not held by another thread at the time of invocation. Acquires the lock if it is not held by another thread and returns immediately with the value true, setting the lock hold count to one. Even when this lock has been set to use a fair ordering policy, a call to **tryLock()** (p. 2697) will immediately acquire the lock if it is available, whether or not other threads are currently waiting for the lock. This "barging" behavior can be useful in certain circumstances, even though it breaks fairness. If you want to honor the fairness setting for this lock, then use **tryLock(0, TimeUnit.SECONDS)** (p. 3214) which is almost equivalent (it also detects interruption).

If the current thread already holds this lock then the hold count is incremented by one and the method returns true.

If the lock is held by another thread then this method will return immediately with the value false.

#### Returns:

true if the lock was acquired and false otherwise

#### Exceptions:

*RuntimeException* if an error occurs while acquiring the lock.

Implements `decaf::util::concurrent::locks::Lock` (p. 2021).

**6.562.3.11**    `virtual void decaf::util::concurrent::locks::ReentrantLock::unlock  
() throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [virtual]`

Attempts to release this lock. If the current thread is the holder of this lock then the hold count is decremented. If the hold count is now zero then the lock is released. If the current thread is not the holder of this lock then `IllegalMonitorStateException` is thrown.

**Exceptions:**

***RuntimeException*** if an error occurs while acquiring the lock.

Implements `decaf::util::concurrent::locks::Lock` (p. 2021).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/locks/ReentrantLock.h`

## 6.563 decaf::util::concurrent::RejectedExecutionException Class Reference

#include <src/main/decaf/util/concurrent/RejectedExecutionException.h> Inheritance diagram for decaf::util::concurrent::RejectedExecutionException:

### Public Member Functions

- **RejectedExecutionException** () throw ()  
*Default Constructor.*
- **RejectedExecutionException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **RejectedExecutionException** (const **RejectedExecutionException** &ex) throw ()  
*Copy Constructor.*
- **RejectedExecutionException** (const std::exception \*cause) throw ()  
*Constructor.*
- **RejectedExecutionException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **RejectedExecutionException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **RejectedExecutionException** \* clone () const  
*Clones this exception.*
- virtual ~**RejectedExecutionException** () throw ()

### 6.563.1 Constructor & Destructor Documentation

#### 6.563.1.1 decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException () throw () [inline]

Default Constructor.

#### 6.563.1.2 decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

**6.563.1.3** `decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException (const RejectedExecutionException & ex) throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* - The Exception to copy in this new instance.

References `decaf::lang::Exception::Exception()`.

**6.563.1.4** `decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException (const std::exception * cause) throw () [inline]`

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.563.1.5** `decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*msg* - The message to report

*...* - list of primitives that are formatted into the message

**6.563.1.6** `decaf::util::concurrent::RejectedExecutionException::RejectedExecutionException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* - The file name where exception occurs

*lineNumber* - The line number where the exception occurred.

*cause* - The exception that was the cause for this one to be thrown.

*msg* - The message to report

*...* - list of primitives that are formatted into the message



**6.563.1.7** virtual  
decaf::util::concurrent::RejectedExecutionException::~RejectedExecutionException  
( ) throw ( ) [inline, virtual]

## 6.563.2 Member Function Documentation

**6.563.2.1** virtual RejectedExecutionException\* de-  
caf::util::concurrent::RejectedExecutionException::clone ( )  
const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

A new instance this exception type with a copy the current state.

Reimplemented from **decaf::lang::Exception** (p. 1577).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**RejectedExecutionException.h**

## 6.564 decaf::util::concurrent::RejectedExecutionHandler Class Reference

A handler for tasks that cannot be executed by a **ThreadPoolExecutor** (p. ??).

```
#include <src/main/decaf/util/concurrent/RejectedExecutionHandler.h>
```

### Public Member Functions

- virtual **~RejectedExecutionHandler** ()

#### 6.564.1 Detailed Description

A handler for tasks that cannot be executed by a **ThreadPoolExecutor** (p. ??).

Since:

1.0

#### 6.564.2 Constructor & Destructor Documentation

- 6.564.2.1 **virtual**  
**decaf::util::concurrent::RejectedExecutionHandler::~RejectedExecutionHandler**  
() [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**RejectedExecutionHandler.h**

## 6.565 activemq::commands::RemoveInfo Class Reference

`#include <src/main/activemq/commands/RemoveInfo.h>` Inheritance diagram for `activemq::commands::RemoveInfo`:

### Public Member Functions

- **RemoveInfo** ()
- virtual **~RemoveInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **RemoveInfo** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **DataStructure** > & **getObjectId** () const
- virtual **Pointer**< **DataStructure** > & **getObjectId** ()
- virtual void **setObjectId** (const **Pointer**< **DataStructure** > &objectId)
- virtual long long **getLastDeliveredSequenceId** () const
- virtual void **setLastDeliveredSequenceId** (long long lastDeliveredSequenceId)
- virtual bool **isRemoveInfo** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor)  
throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_REMOVEINFO** = 12

### Protected Member Functions

- **RemoveInfo** (const **RemoveInfo** &)
- **RemoveInfo** & **operator=** (const **RemoveInfo** &)

## Protected Attributes

- `Pointer< DataStructure > objectId`
- `long long lastDeliveredSequenceId`

## 6.565.1 Constructor & Destructor Documentation

**6.565.1.1** `activemq::commands::RemoveInfo::RemoveInfo (const RemoveInfo &)`  
[inline, protected]

**6.565.1.2** `activemq::commands::RemoveInfo::RemoveInfo ()`

**6.565.1.3** `virtual activemq::commands::RemoveInfo::~~RemoveInfo ()` [virtual]

## 6.565.2 Member Function Documentation

**6.565.2.1** `virtual RemoveInfo* activemq::commands::RemoveInfo::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.565.2.2** `virtual void activemq::commands::RemoveInfo::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.565.2.3** `virtual bool activemq::commands::RemoveInfo::equals (const DataStructure * value) const` [virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.565.2.4** virtual unsigned char activemq::commands::RemoveInfo::getDataStructureType () const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSetructure** (p. 1461) type copy.

Implements **activemq::commands::DataSetructure** (p. 1464).

**6.565.2.5** virtual long long activemq::commands::RemoveInfo::getLastDeliveredSequenceId () const [virtual]

**6.565.2.6** virtual Pointer<DataSetructure>& activemq::commands::RemoveInfo::getObjectId () [virtual]

**6.565.2.7** virtual const Pointer<DataSetructure>& activemq::commands::RemoveInfo::getObjectId () const [virtual]

**6.565.2.8** virtual bool activemq::commands::RemoveInfo::isRemoveInfo () const [inline, virtual]

**Returns:**

an answer of true to the **isRemoveInfo()** (p. 2705) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 654).

**6.565.2.9** RemoveInfo& activemq::commands::RemoveInfo::operator= (const RemoveInfo &) [inline, protected]

**6.565.2.10** virtual void activemq::commands::RemoveInfo::setLastDeliveredSequenceId (long long *lastDeliveredSequenceId*) [virtual]

**6.565.2.11** virtual void activemq::commands::RemoveInfo::setObjectId (const Pointer< DataSetructure > & *objectId*) [virtual]

**6.565.2.12** virtual std::string activemq::commands::RemoveInfo::toString () const [virtual]

Returns a string containing the information for this **DataSetructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.565.2.13** `virtual Pointer<Command> activemq::commands::RemoveInfo::visit  
(activemq::state::CommandVisitor * visitor) throw (  
exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

### 6.565.3 Field Documentation

**6.565.3.1** `const unsigned char activemq::commands::RemoveInfo::ID_ -  
REMOVEINFO = 12` [static]

**6.565.3.2** `long long activemq::commands::RemoveInfo::lastDeliveredSequenceId`  
[protected]

**6.565.3.3** `Pointer<DataStructure> activemq::commands::RemoveInfo::objectId`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/RemoveInfo.h`

## 6.566 activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2707).

#include <src/main/activemq/wireformat/openwire/marshal/v1/RemoveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller:

### Public Member Functions

- **RemoveInfoMarshaller** ()
- virtual **~RemoveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.566.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2707). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.566.2 Constructor & Destructor Documentation

**6.566.2.1** `activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::RemoveInfoMarshaller()` [inline]

**6.566.2.2** `virtual activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::~~RemoveInfoMarshaller()` [inline, virtual]

## 6.566.3 Member Function Documentation

**6.566.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.566.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.566.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.566.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.566.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.566.3.6** virtual void activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.566.3.7** virtual void activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**RemoveInfoMarshaller.h**

## 6.567 activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2711).

#include <src/main/activemq/wireformat/openwire/marshal/v5/RemoveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller:

### Public Member Functions

- **RemoveInfoMarshaller** ()
- virtual **~RemoveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.567.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2711). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.567.2 Constructor & Destructor Documentation

**6.567.2.1** `activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::RemoveInfoMarshaller()` [inline]

**6.567.2.2** `virtual activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::~~RemoveInfoMarshaller()` [inline, virtual]

## 6.567.3 Member Function Documentation

**6.567.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.567.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.567.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.567.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.567.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.567.3.6** virtual void activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.567.3.7** virtual void activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**RemoveInfoMarshaller.h**

## 6.568 activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2715).

#include <src/main/activemq/wireformat/openwire/marshal/v2/RemoveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller:

### Public Member Functions

- **RemoveInfoMarshaller** ()
- virtual **~RemoveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.568.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2715). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.568.2 Constructor & Destructor Documentation

**6.568.2.1** `activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::RemoveInfoMarshaller()` [inline]

**6.568.2.2** `virtual activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::~~RemoveInfoMarshaller()` [inline, virtual]

## 6.568.3 Member Function Documentation

**6.568.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.568.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.568.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.568.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.568.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.568.3.6** virtual void activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.568.3.7** virtual void activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**RemoveInfoMarshaller.h**

## 6.569 activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2719).

#include <src/main/activemq/wireformat/openwire/marshal/v3/RemoveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller:

### Public Member Functions

- **RemoveInfoMarshaller** ()
- virtual **~RemoveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.569.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2719). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.569.2 Constructor & Destructor Documentation

**6.569.2.1** `activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::RemoveInfoMarshaller()` [inline]

**6.569.2.2** `virtual activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::~~RemoveInfoMarshaller()` [inline, virtual]

## 6.569.3 Member Function Documentation

**6.569.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.569.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.569.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.569.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.569.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.569.3.6** virtual void activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.569.3.7** virtual void activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**RemoveInfoMarshaller.h**

## 6.570 activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2723).

#include <src/main/activemq/wireformat/openwire/marshal/v4/RemoveInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller:

### Public Member Functions

- **RemoveInfoMarshaller** ()
- virtual **~RemoveInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.570.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2723). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.570.2 Constructor & Destructor Documentation

**6.570.2.1** `activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::RemoveInfoMarshaller()` [inline]

**6.570.2.2** `virtual activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::~~RemoveInfoMarshaller()` [inline, virtual]

## 6.570.3 Member Function Documentation

**6.570.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.570.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.570.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.



Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.570.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.570.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.570.3.6** virtual void activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.570.3.7** virtual void activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**RemoveInfoMarshaller.h**

## 6.571 activemq::commands::RemoveSubscriptionInfo Class Reference

#include <src/main/activemq/commands/RemoveSubscriptionInfo.h> Inheritance diagram for activemq::commands::RemoveSubscriptionInfo:

### Public Member Functions

- **RemoveSubscriptionInfo** ()
- virtual **~RemoveSubscriptionInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **RemoveSubscriptionInfo** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConnectionId** > & **getConnectionId** () const
- virtual **Pointer**< **ConnectionId** > & **getConnectionId** ()
- virtual void **setConnectionId** (const **Pointer**< **ConnectionId** > &connectionId)
- virtual const std::string & **getSubscriptionName** () const
- virtual std::string & **getSubscriptionName** ()
- virtual void **setSubscriptionName** (const std::string &subscriptionName)
- virtual const std::string & **getClientId** () const
- virtual std::string & **getClientId** ()
- virtual void **setClientId** (const std::string &clientId)
- virtual bool **isRemoveSubscriptionInfo** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor)  
throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_REMOVESUBSCRIPTIONINFO** = 9

## Protected Member Functions

- **RemoveSubscriptionInfo** (const **RemoveSubscriptionInfo** &)
- **RemoveSubscriptionInfo** & **operator=** (const **RemoveSubscriptionInfo** &)

## Protected Attributes

- **Pointer**< **ConnectionId** > **connectionId**
- std::string **subscriptionName**
- std::string **clientId**

### 6.571.1 Constructor & Destructor Documentation

- 6.571.1.1** **activemq::commands::RemoveSubscriptionInfo::RemoveSubscriptionInfo** (const **RemoveSubscriptionInfo** &) [inline, protected]
- 6.571.1.2** **activemq::commands::RemoveSubscriptionInfo::RemoveSubscriptionInfo** ()
- 6.571.1.3** **virtual**  
**activemq::commands::RemoveSubscriptionInfo::~~RemoveSubscriptionInfo** () [virtual]

### 6.571.2 Member Function Documentation

- 6.571.2.1** **virtual RemoveSubscriptionInfo\*** **activemq::commands::RemoveSubscriptionInfo::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

- 6.571.2.2** **virtual void** **activemq::commands::RemoveSubscriptionInfo::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.571.2.3 virtual bool activemq::commands::RemoveSubscriptionInfo::equals (const DataStructure \* *value*) const [virtual]**

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

**6.571.2.4 virtual std::string& activemq::commands::RemoveSubscriptionInfo::getClientId () [virtual]****6.571.2.5 virtual const std::string& activemq::commands::RemoveSubscriptionInfo::getClientId () const [virtual]****6.571.2.6 virtual Pointer<ConnectionId>& activemq::commands::RemoveSubscriptionInfo::getConnectionId () [virtual]****6.571.2.7 virtual const Pointer<ConnectionId>& activemq::commands::RemoveSubscriptionInfo::getConnectionId () const [virtual]****6.571.2.8 virtual unsigned char activemq::commands::RemoveSubscriptionInfo::getDataStructureType () const [virtual]**

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.571.2.9 `virtual std::string& activemq::commands::RemoveSubscriptionInfo::getSubscriptionName ()`  
[virtual]
- 6.571.2.10 `virtual const std::string& activemq::commands::RemoveSubscriptionInfo::getSubscriptionName ()`  
`const` [virtual]
- 6.571.2.11 `virtual bool activemq::commands::RemoveSubscriptionInfo::isRemoveSubscriptionInfo () const` [inline, virtual]

**Returns:**

an answer of true to the `isRemoveSubscriptionInfo()` (p. 2730) query.

Reimplemented from `activemq::commands::BaseCommand` (p. 654).

- 6.571.2.12 `RemoveSubscriptionInfo& activemq::commands::RemoveSubscriptionInfo::operator=`  
`(const RemoveSubscriptionInfo &)` [inline, protected]
- 6.571.2.13 `virtual void activemq::commands::RemoveSubscriptionInfo::setClientId`  
`(const std::string & clientId)` [virtual]
- 6.571.2.14 `virtual void activemq::commands::RemoveSubscriptionInfo::setConnectionId (const`  
`Pointer< ConnectionId > & connectionId)` [virtual]
- 6.571.2.15 `virtual void activemq::commands::RemoveSubscriptionInfo::setSubscriptionName`  
`(const std::string & subscriptionName)` [virtual]
- 6.571.2.16 `virtual std::string activemq::commands::RemoveSubscriptionInfo::toString ()`  
`const` [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

- 6.571.2.17 `virtual Pointer<Command> activemq::commands::RemoveSubscriptionInfo::visit`  
`(activemq::state::CommandVisitor * visitor) throw (`  
`exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.571.3 Field Documentation**

**6.571.3.1** `std::string activemq::commands::RemoveSubscriptionInfo::clientId`  
[protected]

**6.571.3.2** `Pointer<ConnectionId> activemq::commands::RemoveSubscriptionInfo::connectionId`  
[protected]

**6.571.3.3** `const unsigned char activemq::commands::RemoveSubscriptionInfo::ID_REMOVE_SUBSCRIPTION_INFO = 9` [static]

**6.571.3.4** `std::string activemq::commands::RemoveSubscriptionInfo::subscriptionName`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/RemoveSubscriptionInfo.h`

## 6.572 activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2732).

#include <src/main/activemq/wireformat/openwire/marshal/v5/RemoveSubscriptionInfoMarshaller.h> In diagram for activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller:

### Public Member Functions

- **RemoveSubscriptionInfoMarshaller** ()
- virtual **~RemoveSubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.572.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2732).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.572.2 Constructor & Destructor Documentation

**6.572.2.1** `activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::RemoveSubscriptionInfoMarshaller()` [inline]

**6.572.2.2** `virtual activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::~RemoveSubscriptionInfoMarshaller()` [inline, virtual]

## 6.572.3 Member Function Documentation

**6.572.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.572.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.572.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::marshal(commands::DataStructure* (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.572.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.572.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

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activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller

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```
6.572.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::tightMars
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
(p. 682).

```
6.572.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller::tightUnm
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
(p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**RemoveSubscriptionInfoMarshaller.h**

## 6.573 activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2736).

#include <src/main/activemq/wireformat/openwire/marshal/v2/RemoveSubscriptionInfoMarshaller.h> In diagram for activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller:

### Public Member Functions

- **RemoveSubscriptionInfoMarshaller** ()
- virtual **~RemoveSubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.573.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2736).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

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activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller

Class Reference

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## 6.573.2 Constructor & Destructor Documentation

**6.573.2.1** `activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::RemoveSubscriptionInfo()` [inline]

**6.573.2.2** `virtual activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::~~RemoveSubscriptionInfo()` [inline, virtual]

## 6.573.3 Member Function Documentation

**6.573.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.573.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.573.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::marshal(const OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.573.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.573.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

6.573

activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller

Class Reference

2743

```
6.573.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::tightMars
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
(p. 689).

```
6.573.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller::tightUnm
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
(p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**RemoveSubscriptionInfoMarshaller.h**

## 6.574 activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2740).

#include <src/main/activemq/wireformat/openwire/marshal/v1/RemoveSubscriptionInfoMarshaller.h> In diagram for activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller:

### Public Member Functions

- **RemoveSubscriptionInfoMarshaller** ()
- virtual **~RemoveSubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.574.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2740).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



6.574

activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller

Class Reference

2745

## 6.574.2 Constructor & Destructor Documentation

**6.574.2.1** `activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::RemoveSubscriptionInfoMarshaller()` [inline]

**6.574.2.2** `virtual activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::~~RemoveSubscriptionInfoMarshaller()` [inline, virtual]

## 6.574.3 Member Function Documentation

**6.574.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.574.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.574.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::marshal(commands::DataStructure* dataStructure, decaf::io::DataOutputStream* dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.574.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.574.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

6.574

activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller

Class Reference

2747

```
6.574.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::tightMars
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
(p. 668).

```
6.574.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller::tightUnm
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
(p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**RemoveSubscriptionInfoMarshaller.h**

## 6.575 activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2744).

#include <src/main/activemq/wireformat/openwire/marshal/v3/RemoveSubscriptionInfoMarshaller.h> In diagram for activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller:

### Public Member Functions

- **RemoveSubscriptionInfoMarshaller** ()
- virtual **~RemoveSubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.575.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2744).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.575.2 Constructor & Destructor Documentation

**6.575.2.1** `activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::RemoveSubscriptionInfoMarshaller()` `[inline]`

**6.575.2.2** `virtual activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::~RemoveSubscriptionInfoMarshaller()` `[inline, virtual]`

## 6.575.3 Member Function Documentation

**6.575.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.575.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.575.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::marshal(commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.575.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.575.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

6.575

activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller

Class Reference

2751

```
6.575.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::tightMars
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
(p. 661).

```
6.575.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller::tightUnm
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
(p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**RemoveSubscriptionInfoMarshaller.h**

## 6.576 activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2748).

#include <src/main/activemq/wireformat/openwire/marshal/v4/RemoveSubscriptionInfoMarshaller.h> In diagram for activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller:

### Public Member Functions

- **RemoveSubscriptionInfoMarshaller** ()
- virtual **~RemoveSubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.576.1 Detailed Description

Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2748).

NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.576.2 Constructor & Destructor Documentation

**6.576.2.1** `activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::RemoveSubscriptionInfo()` [inline]

**6.576.2.2** `virtual activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::~RemoveSubscriptionInfo()` [inline, virtual]

## 6.576.3 Member Function Documentation

**6.576.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.576.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.576.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::marshal(commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.576.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.576.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::tightMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

6.576

activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller

Class Reference

2755

```
6.576.3.6 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::tightMars
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataOutputStream * dataOut,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
(p. 675).

```
6.576.3.7 virtual void ac-
    tivemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller::tightUnm
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
(p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**RemoveSubscriptionInfoMarshaller.h**

## 6.577 activemq::commands::ReplayCommand Class Reference

#include <src/main/activemq/commands/ReplayCommand.h> Inheritance diagram for activemq::commands::ReplayCommand:

### Public Member Functions

- **ReplayCommand** ()
- virtual **~ReplayCommand** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ReplayCommand** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getFirstNakNumber** () const
- virtual void **setFirstNakNumber** (int firstNakNumber)
- virtual int **getLastNakNumber** () const
- virtual void **setLastNakNumber** (int lastNakNumber)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_REPLAYCOMMAND** = 65

### Protected Member Functions

- **ReplayCommand** (const **ReplayCommand** &)
- **ReplayCommand** & **operator=** (const **ReplayCommand** &)

## Protected Attributes

- int **firstNakNumber**
- int **lastNakNumber**

## 6.577.1 Constructor & Destructor Documentation

**6.577.1.1** `activemq::commands::ReplayCommand::ReplayCommand (const ReplayCommand &) [inline, protected]`

**6.577.1.2** `activemq::commands::ReplayCommand::ReplayCommand ()`

**6.577.1.3** `virtual activemq::commands::ReplayCommand::~~ReplayCommand () [virtual]`

## 6.577.2 Member Function Documentation

**6.577.2.1** `virtual ReplayCommand* activemq::commands::ReplayCommand::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.577.2.2** `virtual void activemq::commands::ReplayCommand::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.577.2.3** `virtual bool activemq::commands::ReplayCommand::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.577.2.4** `virtual unsigned char activemq::commands::ReplayCommand::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

**6.577.2.5** `virtual int activemq::commands::ReplayCommand::getFirstNakNumber () const [virtual]`

**6.577.2.6** `virtual int activemq::commands::ReplayCommand::getLastNakNumber () const [virtual]`

**6.577.2.7** `ReplayCommand& activemq::commands::ReplayCommand::operator= (const ReplayCommand &) [inline, protected]`

**6.577.2.8** `virtual void activemq::commands::ReplayCommand::setFirstNakNumber (int firstNakNumber) [virtual]`

**6.577.2.9** `virtual void activemq::commands::ReplayCommand::setLastNakNumber (int lastNakNumber) [virtual]`

**6.577.2.10** `virtual std::string activemq::commands::ReplayCommand::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.577.2.11** `virtual Pointer<Command> activemq::commands::ReplayCommand::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

### 6.577.3 Field Documentation

**6.577.3.1** `int activemq::commands::ReplayCommand::firstNakNumber` [protected]

**6.577.3.2** `const unsigned char activemq::commands::ReplayCommand::ID_-REPLAYCOMMAND = 65` [static]

**6.577.3.3** `int activemq::commands::ReplayCommand::lastNakNumber` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/ReplayCommand.h`

## 6.578 activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2756).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ReplayCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller:

### Public Member Functions

- **ReplayCommandMarshaller** ()
- virtual **~ReplayCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.578.1 Detailed Description

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2756). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.578.2 Constructor & Destructor Documentation

**6.578.2.1** `activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::ReplayCommandMarshaller()` [inline]

**6.578.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::~~ReplayCommandMarshaller()` [inline, virtual]

## 6.578.3 Member Function Documentation

**6.578.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.578.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.578.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.578.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.578.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.578.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.578.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/ReplayCommandMarshaller.h

## 6.579 activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2760).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ReplayCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller:

### Public Member Functions

- **ReplayCommandMarshaller** ()
- virtual **~ReplayCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.579.1 Detailed Description

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2760). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.579.2 Constructor & Destructor Documentation

**6.579.2.1** `activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::ReplayCommandMarshaller()` [inline]

**6.579.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::~~ReplayCommandMarshaller()` [inline, virtual]

## 6.579.3 Member Function Documentation

**6.579.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.579.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.579.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

**6.579.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

**6.579.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

**6.579.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.579.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/ReplayCommandMarshaller.h

## 6.580 activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2764).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ReplayCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller:

### Public Member Functions

- **ReplayCommandMarshaller** ()
- virtual **~ReplayCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.580.1 Detailed Description

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2764). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.580.2 Constructor & Destructor Documentation

**6.580.2.1** `activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::ReplayCommandMarshaller()` `[inline]`

**6.580.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::~~ReplayCommandMarshaller()` `[inline, virtual]`

## 6.580.3 Member Function Documentation

**6.580.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.580.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.580.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.580.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.580.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.580.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.580.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/ReplayCommandMarshaller.h

## 6.581 activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2768).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ReplayCommandMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller:

### Public Member Functions

- **ReplayCommandMarshaller** ()
- virtual **~ReplayCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.581.1 Detailed Description

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2768). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.581.2 Constructor & Destructor Documentation

**6.581.2.1** `activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::ReplayCommandMarshaller()` [inline]

**6.581.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::~~ReplayCommandMarshaller()` [inline, virtual]

## 6.581.3 Member Function Documentation

**6.581.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.581.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.581.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.581.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.581.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.581.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.581.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/ReplayCommandMarshaller.h

## 6.582 activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller Class Reference

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2772).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ReplayCommandMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller:

### Public Member Functions

- **ReplayCommandMarshaller** ()
- virtual **~ReplayCommandMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.582.1 Detailed Description

Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2772). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.582.2 Constructor & Destructor Documentation

**6.582.2.1** `activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::ReplayCommandMarshaller()` [inline]

**6.582.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::~~ReplayCommandMarshaller()` [inline, virtual]

## 6.582.3 Member Function Documentation

**6.582.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.582.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.582.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.582.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.582.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.582.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.582.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/ReplayCommandMarshaller.h

## 6.583 activemq::cmsutil::CmsTemplate::ResolveProducerExecutor Class Reference

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate::ResolveProducerExecutor:

### Public Member Functions

- **ResolveProducerExecutor** (**ProducerCallback** \**action*, **CmsTemplate** \**parent*, const std::string &*destinationName*)
- virtual ~**ResolveProducerExecutor** ()
- virtual **cms::Destination** \* **getDestination** (**cms::Session** \**session*) throw ( cms::CMSException )

### 6.583.1 Constructor & Destructor Documentation

**6.583.1.1** **activemq::cmsutil::CmsTemplate::ResolveProducerExecutor::ResolveProducerExecutor** (**ProducerCallback** \* *action*, **CmsTemplate** \* *parent*, const std::string & *destinationName*) [inline]

**6.583.1.2** virtual **activemq::cmsutil::CmsTemplate::ResolveProducerExecutor::~~ResolveProducerExecutor** () [inline, virtual]

### 6.583.2 Member Function Documentation

**6.583.2.1** virtual **cms::Destination\*** **activemq::cmsutil::CmsTemplate::ResolveProducerExecutor::getDestination** (**cms::Session** \* *session*) throw ( **cms::CMSException** ) [virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/**CmsTemplate.h**

## 6.584 activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor Class Reference

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor:

### Public Member Functions

- **ResolveReceiveExecutor** (**CmsTemplate** \***parent**, const std::string &**selector**, bool **noLocal**, const std::string &**destinationName**)
- virtual ~**ResolveReceiveExecutor** ()
- virtual **cms::Destination** \* **getDestination** (**cms::Session** \***session**) throw ( **cms::CMSException** )

### 6.584.1 Constructor & Destructor Documentation

**6.584.1.1** **activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor::ResolveReceiveExecutor** (**CmsTemplate** \* *parent*, const std::string & *selector*, bool *noLocal*, const std::string & *destinationName*) [inline]

**6.584.1.2** virtual **activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor::~~ResolveReceiveExecutor** () [inline, virtual]

### 6.584.2 Member Function Documentation

**6.584.2.1** virtual **cms::Destination\*** **activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor::getDestination** (**cms::Session** \* *session*) throw ( **cms::CMSException** ) [virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/**CmsTemplate.h**

## 6.585 activemq::cmsutil::ResourceLifecycleManager Class Reference

Manages the lifecycle of a set of CMS resources.

```
#include <src/main/activemq/cmsutil/ResourceLifecycleManager.h>
```

### Public Member Functions

- **ResourceLifecycleManager** ()
- virtual **~ResourceLifecycleManager** ()  
*Destructor - calls `destroy`.*
- void **addConnection** (cms::Connection \*connection)  
*Adds a connection so that its life will be managed by this object.*
- void **addSession** (cms::Session \*session)  
*Adds a session so that its life will be managed by this object.*
- void **addDestination** (cms::Destination \*dest)  
*Adds a destination so that its life will be managed by this object.*
- void **addMessageProducer** (cms::MessageProducer \*producer)  
*Adds a message producer so that its life will be managed by this object.*
- void **addMessageConsumer** (cms::MessageConsumer \*consumer)  
*Adds a message consumer so that its life will be managed by this object.*
- void **destroy** () throw ( cms::CMSException )  
*Closes and destroys the contained CMS resources.*
- void **releaseAll** ()  
*Releases all of the contained resources so that this object will no longer control their lifetimes.*

### 6.585.1 Detailed Description

Manages the lifecycle of a set of CMS resources. A call to `destroy` will close and destroy all of the contained resources in the appropriate manner.

### 6.585.2 Constructor & Destructor Documentation

**6.585.2.1** **activemq::cmsutil::ResourceLifecycleManager::ResourceLifecycleManager** ()

**6.585.2.2** **virtual**  
**activemq::cmsutil::ResourceLifecycleManager::~~ResourceLifecycleManager** () [virtual]

Destructor - calls `destroy`.

### 6.585.3 Member Function Documentation

**6.585.3.1** void activemq::cmsutil::ResourceLifecycleManager::addConnection  
(cms::Connection \* *connection*) [inline]

Adds a connection so that its life will be managed by this object.

**Parameters:**

*connection* the object to be managed

**6.585.3.2** void activemq::cmsutil::ResourceLifecycleManager::addDestination  
(cms::Destination \* *dest*) [inline]

Adds a destination so that its life will be managed by this object.

**Parameters:**

*dest* the object to be managed

**6.585.3.3** void activemq::cmsutil::ResourceLifecycleManager::addMessageConsumer  
(cms::MessageConsumer \* *consumer*) [inline]

Adds a message consumer so that its life will be managed by this object.

**Parameters:**

*consumer* the object to be managed

**6.585.3.4** void activemq::cmsutil::ResourceLifecycleManager::addMessageProducer  
(cms::MessageProducer \* *producer*) [inline]

Adds a message producer so that its life will be managed by this object.

**Parameters:**

*producer* the object to be managed

**6.585.3.5** void activemq::cmsutil::ResourceLifecycleManager::addSession  
(cms::Session \* *session*) [inline]

Adds a session so that its life will be managed by this object.

**Parameters:**

*session* the object to be managed

**6.585.3.6** `void activemq::cmsutil::ResourceLifecycleManager::destroy () throw (cms::CMSException )`

Closes and destroys the contained CMS resources.

**Exceptions:**

*cms::CMSException* (p. 1031) thrown if an error occurs.

**6.585.3.7** `void activemq::cmsutil::ResourceLifecycleManager::releaseAll ()`

Releases all of the contained resources so that this object will no longer control their lifetimes.

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/ResourceLifecycleManager.h`



## 6.586 activemq::commands::Response Class Reference

#include <src/main/activemq/commands/Response.h> Inheritance diagram for activemq::commands::Response:

### Public Member Functions

- **Response** ()
- virtual **~Response** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **Response** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getCorrelationId** () const
- virtual void **setCorrelationId** (int correlationId)
- virtual bool **isResponse** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_RESPONSE** = 30

### Protected Member Functions

- **Response** (const **Response** &)
- **Response** & **operator=** (const **Response** &)

### Protected Attributes

- int **correlationId**

## 6.586.1 Constructor & Destructor Documentation

**6.586.1.1** `activemq::commands::Response::Response (const Response &) [inline, protected]`

**6.586.1.2** `activemq::commands::Response::Response ()`

**6.586.1.3** `virtual activemq::commands::Response::~~Response () [virtual]`

## 6.586.2 Member Function Documentation

**6.586.2.1** `virtual Response* activemq::commands::Response::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

Reimplemented in `activemq::commands::DataArrayResponse` (p. 1357), `activemq::commands::DataResponse` (p. 1396), `activemq::commands::ExceptionResponse` (p. 1583), and `activemq::commands::IntegerResponse` (p. 1778).

**6.586.2.2** `virtual void activemq::commands::Response::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

Reimplemented in `activemq::commands::DataArrayResponse` (p. 1357), `activemq::commands::DataResponse` (p. 1396), `activemq::commands::ExceptionResponse` (p. 1583), and `activemq::commands::IntegerResponse` (p. 1778).

**6.586.2.3** `virtual bool activemq::commands::Response::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from **activemq::commands::BaseCommand** (p. 651).

Reimplemented in **activemq::commands::DataArrayResponse** (p. 1357), **activemq::commands::DataResponse** (p. 1396), **activemq::commands::ExceptionResponse** (p. 1583), and **activemq::commands::IntegerResponse** (p. 1778).

**6.586.2.4** `virtual int activemq::commands::Response::getCorrelationId () const [virtual]`

**6.586.2.5** `virtual unsigned char activemq::commands::Response::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

Reimplemented in **activemq::commands::DataArrayResponse** (p. 1358), **activemq::commands::DataResponse** (p. 1397), **activemq::commands::ExceptionResponse** (p. 1583), and **activemq::commands::IntegerResponse** (p. 1778).

**6.586.2.6** `virtual bool activemq::commands::Response::isResponse () const [inline, virtual]`

**Returns:**

an answer of true to the **isResponse()** (p. 2783) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 654).

**6.586.2.7** `Response& activemq::commands::Response::operator= (const Response &) [inline, protected]`

**6.586.2.8** `virtual void activemq::commands::Response::setCorrelationId (int correlationId) [virtual]`

**6.586.2.9** `virtual std::string activemq::commands::Response::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

Reimplemented in `activemq::commands::DataArrayResponse`  
 (p. 1358), `activemq::commands::DataResponse` (p. 1397), `ac-`  
`tivemq::commands::ExceptionResponse` (p. 1584), and `ac-`  
`tivemq::commands::IntegerResponse` (p. 1779).

**6.586.2.10** `virtual Pointer<Command> activemq::commands::Response::visit`  
`(activemq::state::CommandVisitor * visitor) throw (`  
`exceptions::ActiveMQException ) [virtual]`

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements `activemq::commands::Command` (p. 1067).

## 6.586.3 Field Documentation

**6.586.3.1** `int activemq::commands::Response::correlationId [protected]`

**6.586.3.2** `const unsigned char activemq::commands::Response::ID_RESPONSE =`  
`30 [static]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/Response.h`

## 6.587 activemq::transport::mock::ResponseBuilder Class Reference

Interface for all Protocols to implement that defines the behavior of the Broker in response to messages of that protocol.

#include <src/main/activemq/transport/mock/ResponseBuilder.h>Inheritance diagram for activemq::transport::mock::ResponseBuilder:

### Public Member Functions

- virtual **~ResponseBuilder** ()
- virtual **Pointer< Response > buildResponse** (const **Pointer< Command > &command**)=0  
*Given a Command, check if it requires a response and return the appropriate Response that the Broker would send for this Command.*
- virtual void **buildIncomingCommands** (const **Pointer< Command > &command**, **decaf::util::StlQueue< Pointer< Command > > &queue**)=0  
*When called the **ResponseBuilder** (p. 2785) must construct all the Responses or Asynchronous commands that would be sent to this client by the Broker upon receipt of the passed command.*

### 6.587.1 Detailed Description

Interface for all Protocols to implement that defines the behavior of the Broker in response to messages of that protocol.

### 6.587.2 Constructor & Destructor Documentation

**6.587.2.1** virtual **activemq::transport::mock::ResponseBuilder::~~ResponseBuilder** () [inline, virtual]

### 6.587.3 Member Function Documentation

**6.587.3.1** virtual void **activemq::transport::mock::ResponseBuilder::buildIncomingCommands** (const **Pointer< Command > &command**, **decaf::util::StlQueue< Pointer< Command > > &queue**) [pure virtual]

When called the **ResponseBuilder** (p. 2785) must construct all the Responses or Asynchronous commands that would be sent to this client by the Broker upon receipt of the passed command.

#### Parameters:

- command* - The Command being sent to the Broker.
- queue* - Queue of Command sent back from the broker.

Implemented in **activemq::wireformat::openwire::OpenWireResponseBuilder** (p. 2466).

**6.587.3.2** `virtual Pointer<Response> activemq::transport::mock::ResponseBuilder::buildResponse  
(const Pointer< Command > & command) [pure virtual]`

Given a Command, check if it requires a response and return the appropriate Response that the Broker would send for this Command.

**Parameters:**

*command* - The command to build a response for

**Returns:**

A Response object pointer, or NULL if no response.

Implemented in `activemq::wireformat::openwire::OpenWireResponseBuilder` (p. 2467).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/mock/ResponseBuilder.h`

## 6.588 activemq::transport::correlator::ResponseCorrelator Class Reference

This type of transport filter is responsible for correlating asynchronous responses with requests.

#include <src/main/activemq/transport/correlator/ResponseCorrelator.h> Inheritance diagram for activemq::transport::correlator::ResponseCorrelator:

### Public Member Functions

- **ResponseCorrelator** (const **Pointer**< **Transport** > &next)  
*Constructor.*
- virtual ~**ResponseCorrelator** ()
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given request to the server and waits for the response.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given request to the server and waits for the response.*
- virtual void **onCommand** (const **Pointer**< **Command** > &command)  
*This is called in the context of the nested transport's reading thread.*
- virtual void **start** () throw ( decaf::io::IOException )  
*Starts this transport object and creates the thread for polling on the input stream for commands.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Stops the polling thread and closes the streams.*
- virtual void **onTransportException** (**Transport** \*source, const **decaf::lang::Exception** &ex)  
*Event handler for an exception from a command transport.*

### 6.588.1 Detailed Description

This type of transport filter is responsible for correlating asynchronous responses with requests. Non-response messages are simply sent directly to the CommandListener. It owns the transport that it

## 6.588.2 Constructor & Destructor Documentation

### 6.588.2.1 `activemq::transport::correlator::ResponseCorrelator::ResponseCorrelator (const Pointer< Transport > & next)`

Constructor.

#### Parameters:

*next* the next transport in the chain

### 6.588.2.2 `virtual activemq::transport::correlator::ResponseCorrelator::~ResponseCorrelator () [virtual]`

## 6.588.3 Member Function Documentation

### 6.588.3.1 `virtual void activemq::transport::correlator::ResponseCorrelator::close () throw ( decaf::io::IOException ) [virtual]`

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

#### Exceptions:

*IOException* if errors occur.

Reimplemented from `activemq::transport::TransportFilter` (p. 3283).

### 6.588.3.2 `virtual void activemq::transport::correlator::ResponseCorrelator::onCommand (const Pointer< Command > & command) [virtual]`

This is called in the context of the nested transport's reading thread. In the case of a response object, updates the request map and notifies those waiting on the response. Non-response messages are just delegated to the command listener.

#### Parameters:

*command* the received from the nested transport.

Reimplemented from `activemq::transport::TransportFilter` (p. 3285).

### 6.588.3.3 `virtual void activemq::transport::correlator::ResponseCorrelator::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends a one-way command. Does not wait for any response from the broker.

#### Parameters:

*command* the command to be sent.



**Exceptions:**

***IOException*** if an exception occurs during writing of the command.

***UnsupportedOperationException*** if this method is not implemented by this transport.

Reimplemented from **activemq::transport::TransportFilter** (p. 3285).

**6.588.3.4** `virtual void activemq::transport::correlator::ResponseCorrelator::onTransportException (Transport * source, const decaf::lang::Exception & ex) [virtual]`

Event handler for an exception from a command transport.

**Parameters:**

***source*** The source of the exception

***ex*** The exception.

**6.588.3.5** `virtual Pointer<Response> activemq::transport::correlator::ResponseCorrelator::request (const Pointer< Command > & command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given request to the server and waits for the response.

**Parameters:**

***command*** The request to send.

***timeout*** The time to wait for a response.

**Returns:**

the response from the server.

**Exceptions:**

***IOException*** if an error occurs with the request.

Reimplemented from **activemq::transport::TransportFilter** (p. 3286).

**6.588.3.6** `virtual Pointer<Response> activemq::transport::correlator::ResponseCorrelator::request (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

Sends the given request to the server and waits for the response.

**Parameters:**

***command*** The request to send.

**Returns:**

the response from the server.

**Exceptions:**

***IOException*** if an error occurs with the request.

Reimplemented from **activemq::transport::TransportFilter** (p. 3287).

**6.588.3.7** **virtual void activemq::transport::correlator::ResponseCorrelator::start ()**  
**throw ( decaf::io::IOException )** [virtual]

Starts this transport object and creates the thread for polling on the input stream for commands. If this object has been closed, throws an exception. Before calling start, the caller must set the IO streams and the reader and writer objects.

**Exceptions:**

***IOException*** if an error occurs or if this transport has already been closed.

Reimplemented from **activemq::transport::TransportFilter** (p. 3287).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/correlator/**ResponseCorrelator.h**

## 6.589 activemq::wireformat::openwire::marshal::v2::ResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2791).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ResponseMarshaller:

### Public Member Functions

- **ResponseMarshaller** ()
- virtual **~ResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.589.1 Detailed Description

Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2791). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.589.2 Constructor & Destructor Documentation

**6.589.2.1** `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::ResponseMarshaller()` [inline]

**6.589.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::~~ResponseMarshaller()` [inline, virtual]

## 6.589.3 Member Function Documentation

**6.589.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1376), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1415), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1586), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1781).

**6.589.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1376), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1415), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1586), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1781).

**6.589.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1376), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1415), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1586), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1781).

**6.589.3.4** virtual void `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1377), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1416), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1587), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1782).

**6.589.3.5** virtual int `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1377), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1416), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1587), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1782).

**6.589.3.6** virtual void `activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::tightMarshal2` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataOutputStream * dataOut`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 689).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller` (p. 1378), `activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller` (p. 1417), `activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller` (p. 1588), and `activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller` (p. 1783).

**6.589.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller** (p. 1378), **activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller** (p. 1417), **activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller** (p. 1588), and **activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller** (p. 1783).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**ResponseMarshaller.h**

## 6.590 activemq::wireformat::openwire::marshal::v3::ResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2796).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ResponseMarshaller:

### Public Member Functions

- **ResponseMarshaller** ()
- virtual **~ResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.590.1 Detailed Description

Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2796). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.590.2 Constructor & Destructor Documentation

**6.590.2.1** `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::ResponseMarshaller()` [inline]

**6.590.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::~~ResponseMarshaller()` [inline, virtual]

## 6.590.3 Member Function Documentation

**6.590.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1360), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1399), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1594), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1789).

**6.590.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1360), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1399), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1594), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1789).

**6.590.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 658).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1360), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1399), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1594), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1789).

**6.590.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 659).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1361), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1400), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1595), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1790).

**6.590.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 660).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1361), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1400), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1595), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1790).

**6.590.3.6** virtual void `activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::tightMarshal2` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataOutputStream * dataOut`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1362), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1401), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1596), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1791).

```
6.590.3.7 virtual void activemq::wireformat::openwire::marshal::v3::ResponseMarshaller::tightUnmarshal
(OpenWireFormat * wireFormat, commands::DataStructure
 * dataStructure, decaf::io::DataInputStream * dataIn,
 utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller` (p. 1362), `activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller` (p. 1401), `activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller` (p. 1596), and `activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller` (p. 1791).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h`

## 6.591 activemq::wireformat::openwire::marshal::v5::ResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2801).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ResponseMarshaller:

### Public Member Functions

- **ResponseMarshaller** ()
- virtual **~ResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.591.1 Detailed Description

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2801). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.591.2 Constructor & Destructor Documentation

**6.591.2.1** `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::ResponseMarshaller()` [inline]

**6.591.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::~~ResponseMarshaller()` [inline, virtual]

## 6.591.3 Member Function Documentation

**6.591.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1602), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797).

**6.591.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1602), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797).

**6.591.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1372), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1407), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1602), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1797).

**6.591.3.4** virtual void `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1373), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1408), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1603), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1798).

**6.591.3.5** virtual int `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1373), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1408), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1603), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1798).

**6.591.3.6** virtual void `activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::tightMarshal2` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataOutputStream * dataOut`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 682).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller` (p. 1374), `activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller` (p. 1409), `activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller` (p. 1604), and `activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller` (p. 1799).



**6.591.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

Reimplemented in **activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller** (p. 1374), **activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller** (p. 1409), **activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller** (p. 1604), and **activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller** (p. 1799).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**ResponseMarshaller.h**

## 6.592 activemq::wireformat::openwire::marshal::v1::ResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2806).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ResponseMarshaller:

### Public Member Functions

- **ResponseMarshaller** ()
- virtual **~ResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.592.1 Detailed Description

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2806). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.592.2 Constructor & Destructor Documentation

**6.592.2.1** `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::ResponseMarshaller()` [inline]

**6.592.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::~~ResponseMarshaller()` [inline, virtual]

## 6.592.3 Member Function Documentation

**6.592.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1368), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1403), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1590), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1785).

**6.592.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1368), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1403), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1590), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1785).

**6.592.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1368), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1403), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1590), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1785).

**6.592.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1369), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1404), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1591), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1786).

**6.592.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1369), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1404), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1591), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1786).

**6.592.3.6** virtual void `activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::tightMarshal2` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataOutputStream * dataOut`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 668).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1370), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1405), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1592), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1787).

```
6.592.3.7 virtual void activemq::wireformat::openwire::marshal::v1::ResponseMarshaller::tightUnmarshal
(OpenWireFormat * wireFormat, commands::DataStructure
 * dataStructure, decaf::io::DataInputStream * dataIn,
 utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 669).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller` (p. 1370), `activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller` (p. 1405), `activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller` (p. 1592), and `activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller` (p. 1787).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h`

## 6.593 activemq::wireformat::openwire::marshal::v4::ResponseMarshaller Class Reference

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2811).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ResponseMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ResponseMarshaller:

### Public Member Functions

- **ResponseMarshaller** ()
- virtual **~ResponseMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.593.1 Detailed Description

Marshaling code for Open Wire Format for **ResponseMarshaller** (p.2811). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.593.2 Constructor & Destructor Documentation

**6.593.2.1** `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::ResponseMarshaller()` [inline]

**6.593.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::~~ResponseMarshaller()` [inline, virtual]

## 6.593.3 Member Function Documentation

**6.593.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1364), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1411), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1598), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1793).

**6.593.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1364), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1411), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1598), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1793).

**6.593.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.



**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryWriter that provides that data sink

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1364), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1411), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1598), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1793).

**6.593.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1365), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1412), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1599), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1794).

**6.593.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1365), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1412), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1599), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1794).

**6.593.3.6** virtual void `activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::tightMarshal2` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataOutputStream * dataOut`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 675).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller` (p. 1366), `activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller` (p. 1413), `activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller` (p. 1600), and `activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller` (p. 1795).

**6.593.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ResponseMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller** (p. 1366), **activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller** (p. 1413), **activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller** (p. 1600), and **activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller** (p. 1795).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**ResponseMarshaller.h**

## 6.594 decaf::lang::Runnable Class Reference

Interface for a runnable object - defines a task that can be run by a thread.

#include <src/main/decaf/lang/Runnable.h> Inheritance diagram for decaf::lang::Runnable:

### Public Member Functions

- virtual `~Runnable()`
- virtual void `run()`=0

*Run method - called by the Thread class in the context of the thread.*

### 6.594.1 Detailed Description

Interface for a runnable object - defines a task that can be run by a thread.

### 6.594.2 Constructor & Destructor Documentation

**6.594.2.1** virtual `decaf::lang::Runnable::~~Runnable()` [inline, virtual]

### 6.594.3 Member Function Documentation

**6.594.3.1** virtual void `decaf::lang::Runnable::run()` [pure virtual]

Run method - called by the Thread class in the context of the thread.

Implemented in `activemq::threads::CompositeTaskRunner` (p. 1093), `activemq::threads::DedicatedTaskRunner` (p. 1473), `activemq::transport::inactivity::ReadChecker` (p. 2682), `activemq::transport::inactivity::WriteChecker` (p. 3403), and `activemq::transport::IOTransport` (p. 1828).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Runnable.h`

## 6.595 decaf::lang::Runtime Class Reference

#include <src/main/decaf/lang/Runtime.h> Inheritance diagram for decaf::lang::Runtime:

### Public Member Functions

- virtual `~Runtime ()`

### Static Public Member Functions

- static `Runtime * getRuntime ()`  
*Gets the single instance of the Decaf **Runtime** (p. 2817) for this Process.*
- static void `initializeRuntime (int argc, char **argv)`  
*Initialize the Decaf Library passing it the args that were passed to the application at startup.*
- static void `initializeRuntime ()`  
*Initialize the Decaf Library.*
- static void `shutdownRuntime ()`  
*Shutdown the Decaf Library, this call should take places after all objects that were created from the Decaf library have been deallocated.*

### 6.595.1 Constructor & Destructor Documentation

**6.595.1.1** virtual `decaf::lang::Runtime::~~Runtime ()` [inline, virtual]

### 6.595.2 Member Function Documentation

**6.595.2.1** static `Runtime* decaf::lang::Runtime::getRuntime ()` [static]

Gets the single instance of the Decaf **Runtime** (p. 2817) for this Process.

#### Returns:

pointer to the single Decaf **Runtime** (p. 2817) instance that exists for this process

**6.595.2.2** static void `decaf::lang::Runtime::initializeRuntime ()` [static]

Initialize the Decaf Library.

#### Exceptions:

***runtime\_error*** if the library is already initialized or an error occurs during initialization.



## 6.596 decaf::lang::exceptions::RuntimeException Class Reference

#include <src/main/decaf/lang/exceptions/RuntimeException.h> Inheritance diagram for decaf::lang::exceptions::RuntimeException:

### Public Member Functions

- **RuntimeException** () throw ()  
*Default Constructor.*
- **RuntimeException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other ActiveMQException.*
- **RuntimeException** (const **RuntimeException** &ex) throw ()  
*Copy Constructor.*
- **RuntimeException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **RuntimeException** (const std::exception \*cause) throw ()  
*Constructor.*
- **RuntimeException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **RuntimeException** \* clone () const  
*Clones this exception.*
- virtual ~**RuntimeException** () throw ()

### 6.596.1 Constructor & Destructor Documentation

#### 6.596.1.1 decaf::lang::exceptions::RuntimeException::RuntimeException () throw () [inline]

Default Constructor.

#### 6.596.1.2 decaf::lang::exceptions::RuntimeException::RuntimeException (const Exception & ex) throw () [inline]

Conversion Constructor from some other ActiveMQException.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.596.1.3 `decaf::lang::exceptions::RuntimeException::RuntimeException (const RuntimeException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* The **Exception** (p. 1574) whose data is to be copied into this one.

### 6.596.1.4 `decaf::lang::exceptions::RuntimeException::RuntimeException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.596.1.5 `decaf::lang::exceptions::RuntimeException::RuntimeException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.596.1.6 `decaf::lang::exceptions::RuntimeException::RuntimeException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message



**6.596.1.7** virtual decaf::lang::exceptions::RuntimeException::~~RuntimeException  
( ) throw ( ) [inline, virtual]

## 6.596.2 Member Function Documentation

**6.596.2.1** virtual RuntimeException\* decaf::lang::exceptions::RuntimeException::clone ( ) const  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

an new **Exception** (p.1574) that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p.1577).

The documentation for this class was generated from the following file:

- src/main/decaf/lang/exceptions/**RuntimeException.h**

## 6.597 decaf::security\_provider::SecurityProvider Class Reference

```
#include <src/main/decaf/security_provider/SecurityProvider.h>
```

### Public Member Functions

- virtual `~SecurityProvider ()`
- virtual `X500Principal * createX500Principal (const std::string &name)=0`
- virtual `X500Principal * createX500Principal (InputStream &is)=0`
- virtual `X500Principal * createX500Principal (unsigned char *buffer, int offset, int len)=0`

### 6.597.1 Constructor & Destructor Documentation

**6.597.1.1** virtual `decaf::security_provider::SecurityProvider::~~SecurityProvider ()`  
[inline, virtual]

### 6.597.2 Member Function Documentation

**6.597.2.1** virtual `X500Principal* decaf::security_provider::SecurityProvider::createX500Principal (unsigned char * buffer, int offset, int len)` [pure virtual]

**6.597.2.2** virtual `X500Principal* decaf::security_provider::SecurityProvider::createX500Principal (InputStream & is)` [pure virtual]

**6.597.2.3** virtual `X500Principal* decaf::security_provider::SecurityProvider::createX500Principal (const std::string & name)` [pure virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/security_provider/SecurityProvider.h`

## 6.598 decaf::security\_provider::SecurityProviderMap Class Reference

Lookup Map for Connector Factories.

```
#include <src/main/decaf/security_provider/SecurityProviderMap.h>
```

### Public Member Functions

- void **registerSecurityProvider** (const std::string &name, **SecurityProvider** \*provider)  
*Registers a new provider with this map.*
- void **unregisterSecurityProvider** (const std::string &name)  
*Unregisters a provider from this map.*
- **SecurityProvider** \* **lookup** (const std::string &name)  
*Lookup the named provider in the Map.*
- std::size\_t **getSecurityProviderNames** (std::vector< std::string > &providers)  
*Fetch a list of provider names that this Map contains.*

### Static Public Member Functions

- static **SecurityProviderMap** \* **getInstance** ()  
*Gets a singleton instance of this class.*

#### 6.598.1 Detailed Description

Lookup Map for Connector Factories. Use the Connector name to find the associated factory. This class does not take ownership of the stored factories, they must be deallocated somewhere.

#### 6.598.2 Member Function Documentation

##### 6.598.2.1 static **SecurityProviderMap**\* decaf::security\_provider::SecurityProviderMap::getInstance () [static]

Gets a singleton instance of this class.

Referenced by decaf::security\_provider::SecurityProviderRegistrar::SecurityProviderRegistrar(), and decaf::security\_provider::SecurityProviderRegistrar::~~SecurityProviderRegistrar().

##### 6.598.2.2 std::size\_t decaf::security\_provider::SecurityProviderMap::getSecurityProviderNames (std::vector< std::string > & providers)

Fetch a list of provider names that this Map contains.

**Parameters:**

*providers* A vector object to receive the list

**Returns:**

count of providers.

**6.598.2.3** `SecurityProvider* decaf::security_ -  
provider::SecurityProviderMap::lookup (const std::string  
& name)`

Lookup the named provider in the Map.

**Parameters:**

*name* the provider name to lookup

**Returns:**

the provider associated with the name, or NULL

**6.598.2.4** `void decaf::security_ -  
provider::SecurityProviderMap::registerSecurityProvider  
(const std::string & name, SecurityProvider * provider)`

Registers a new provider with this map.

**Parameters:**

*name* A name to associate the provider with  
*provider* the provider object to store in the map.

**6.598.2.5** `void decaf::security_ -  
provider::SecurityProviderMap::unregisterSecurityProvider (const  
std::string & name)`

Unregisters a provider from this map.

**Parameters:**

*name* the name of the provider to remove

The documentation for this class was generated from the following file:

- `src/main/decaf/security_provider/SecurityProviderMap.h`

## 6.599 decaf::security\_provider::SecurityProviderRegistrar Class Reference

Registers the passed in provider into the provider map, this class can manage the lifetime of the registered provider (default behaviour).

```
#include <src/main/decaf/security_provider/SecurityProviderRegistrar.h>
```

### Public Member Functions

- **SecurityProviderRegistrar** (const std::string &name, **SecurityProvider** \*provider, bool manageLifetime=true)  
*Creates a registrar and registers the provider with the provider map.*
- virtual ~**SecurityProviderRegistrar** ()  
*Unregisters the provider from the provider map and destroys it if `manageLifetime` is set.*
- virtual **SecurityProvider** \* **getProvider** ()  
*get a reference to the factory that this class is holding*

### 6.599.1 Detailed Description

Registers the passed in provider into the provider map, this class can manage the lifetime of the registered provider (default behaviour).

### 6.599.2 Constructor & Destructor Documentation

**6.599.2.1 decaf::security\_provider::SecurityProviderRegistrar::SecurityProviderRegistrar** (const std::string & *name*, **SecurityProvider** \* *provider*, bool *manageLifetime* = true) [inline]

Creates a registrar and registers the provider with the provider map.

#### Parameters:

*name* name of the provider to register

*provider* the provider object

*manageLifetime* boolean indicating if this object manages the lifetime of the factory that is being registered.

References decaf::security\_provider::SecurityProviderMap::getInstance().

**6.599.2.2 virtual decaf::security\_provider::SecurityProviderRegistrar::~~SecurityProviderRegistrar** () [inline, virtual]

Unregisters the provider from the provider map and destroys it if `manageLifetime` is set.

References decaf::security\_provider::SecurityProviderMap::getInstance().

### 6.599.3 Member Function Documentation

**6.599.3.1**   `virtual SecurityProvider* decaf::security_  
provider::SecurityProviderRegistrar::getProvider ()`  
[inline, virtual]

get a reference to the factory that this class is holding

**Returns:**

reference to a factory class

The documentation for this class was generated from the following file:

- `src/main/decaf/security_provider/SecurityProviderRegistrar.h`

## 6.600 decaf::util::concurrent::Semaphore Class Reference

A counting semaphore.

```
#include <src/main/decaf/util/concurrent/Semaphore.h>
```

### Public Member Functions

- **Semaphore** (int permits)  
*Creates a **Semaphore** (p. 2827) with the given number of permits and nonfair fairness setting.*
- **Semaphore** (int permits, bool fair)  
*Creates a **Semaphore** (p. 2827) with the given number of permits and the given fairness setting.*
- virtual **~Semaphore** ()
- void **acquire** () throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::RuntimeException )  
*Acquires a permit from this semaphore, blocking until one is available, or the thread is interrupted.*
- void **acquireUninterruptibly** () throw ( decaf::lang::exceptions::RuntimeException )  
*Acquires a permit from this semaphore, blocking until one is available.*
- bool **tryAcquire** () throw ( decaf::lang::exceptions::RuntimeException )  
*Acquires a permit from this semaphore, only if one is available at the time of invocation.*
- bool **tryAcquire** (long long timeout, const **TimeUnit** &unit) throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::RuntimeException )  
*Acquires a permit from this semaphore, if one becomes available within the given waiting time and the current thread has not been interrupted.*
- void **release** () throw ( decaf::lang::exceptions::RuntimeException )  
*Releases a permit, returning it to the semaphore.*
- void **acquire** (int permits) throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )  
*Acquires the given number of permits from this semaphore, blocking until all are available, or the thread is interrupted.*
- void **acquireUninterruptibly** (int permits) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )  
*Acquires the given number of permits from this semaphore, blocking until all are available.*
- bool **tryAcquire** (int permits) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )  
*Acquires the given number of permits from this semaphore, only if all are available at the time of invocation.*
- bool **tryAcquire** (int permits, long long timeout, const **TimeUnit** &unit) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )

*Acquires the given number of permits from this semaphore, if all become available within the given waiting time and the current thread has not been interrupted.*

- void **release** (int permits) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )

*Releases the given number of permits, returning them to the semaphore.*

- int **availablePermits** () const

*Returns the current number of permits available in this semaphore.*

- int **drainPermits** () throw ( decaf::lang::exceptions::RuntimeException )

*Acquires and returns all permits that are immediately available.*

- bool **isFair** () const

- std::string **toString** () const

*Returns a string identifying this semaphore, as well as its state.*

### 6.600.1 Detailed Description

A counting semaphore. Conceptually, a semaphore maintains a set of permits. Each **acquire()** (p. 2830) blocks if necessary until a permit is available, and then takes it. Each **release()** (p. 2833) adds a permit, potentially releasing a blocking acquirer. However, no actual permit objects are used; the **Semaphore** (p. 2827) just keeps a count of the number available and acts accordingly.

Semaphores are often used to restrict the number of threads than can access some (physical or logical) resource.

```
class Pool { private:
```

```
static const int MAX_AVAILABLE = 100; Semaphore (p. 2827) available;
```

```
std::vector<std::string> items; std::vector<bool> used;
```

```
Mutex (p. 2385) lock;
```

```
public:
```

```
Pool() : available( MAX_AVAILABLE, true ) { used.resize( MAX_AVAILABLE ); items.resize( MAX_AVAILABLE ); }
```

```
std::string getItem() throws InterruptedException { available.acquire(); return getNextAvailableItem(); }
```

```
void putItem( std::string x ) { if( markAsUnused(x) ) { available.release(); } }
```

```
std::string getNextAvailableItem() {
```

```
synchronized( &lock ) (p. 4126) { for( int i = 0; i < MAX_AVAILABLE; ++i ) { if( !used[i] ) { used[i] = true; return items[i]; } }
```

```
return std::string(); // not reached }
```

```
bool markAsUnused( const std::string& item ) { synchronized( &lock ) (p. 4126) { for( int i = 0; i < MAX_AVAILABLE; ++i ) { if( item == items[i] ) { if( used[i] ) { used[i] = false; return true; } else return false; } } } return false; } };
```

Before obtaining an item each thread must acquire a permit from the semaphore, guaranteeing that an item is available for use. When the thread has finished with the item it is returned back



to the pool and a permit is returned to the semaphore, allowing another thread to acquire that item. Note that no synchronization lock is held when **acquire()** (p.2830) is called as that would prevent an item from being returned to the pool. The semaphore encapsulates the synchronization needed to restrict access to the pool, separately from any synchronization needed to maintain the consistency of the pool itself.

A semaphore initialized to one, and which is used such that it only has at most one permit available, can serve as a mutual exclusion lock. This is more commonly known as a binary semaphore, because it only has two states: one permit available, or zero permits available. When used in this way, the binary semaphore has the property (unlike many **Lock** (p.2023) implementations), that the "lock" can be released by a thread other than the owner (as semaphores have no notion of ownership). This can be useful in some specialized contexts, such as deadlock recovery.

The constructor for this class optionally accepts a fairness parameter. When set false, this class makes no guarantees about the order in which threads acquire permits. In particular, barging is permitted, that is, a thread invoking **acquire()** (p.2830) can be allocated a permit ahead of a thread that has been waiting - logically the new thread places itself at the head of the queue of waiting threads. When fairness is set true, the semaphore guarantees that threads invoking any of the acquire methods are selected to obtain permits in the order in which their invocation of those methods was processed (first-in-first-out; FIFO). Note that FIFO ordering necessarily applies to specific internal points of execution within these methods. So, it is possible for one thread to invoke acquire before another, but reach the ordering point after the other, and similarly upon return from the method. Also note that the untimed tryAcquire methods do not honor the fairness setting, but will take any permits that are available.

Generally, semaphores used to control resource access should be initialized as fair, to ensure that no thread is starved out from accessing a resource. When using semaphores for other kinds of synchronization control, the throughput advantages of non-fair ordering often outweigh fairness considerations.

This class also provides convenience methods to acquire and release multiple permits at a time. Beware of the increased risk of indefinite postponement when these methods are used without fairness set true.

**Since:**

1.0

## 6.600.2 Constructor & Destructor Documentation

### 6.600.2.1 decaf::util::concurrent::Semaphore::Semaphore (int *permits*)

Creates a **Semaphore** (p.2827) with the given number of permits and nonfair fairness setting.

**Parameters:**

*permits* the initial number of permits available. This value may be negative, in which case releases must occur before any acquires will be granted.

### 6.600.2.2 decaf::util::concurrent::Semaphore::Semaphore (int *permits*, bool *fair*)

Creates a **Semaphore** (p.2827) with the given number of permits and the given fairness setting.

**Parameters:**

*permits* the initial number of permits available. This value may be negative, in which case releases must occur before any acquires will be granted.

*fair* true if this semaphore will guarantee first-in first-out granting of permits under contention, else false

**6.600.2.3** `virtual decaf::util::concurrent::Semaphore::~~Semaphore ()` [virtual]

### 6.600.3 Member Function Documentation

**6.600.3.1** `void decaf::util::concurrent::Semaphore::acquire (int permits)`  
`throw ( decaf::lang::exceptions::InterruptedException,`  
`decaf::lang::exceptions::IllegalArgumentException,`  
`decaf::lang::exceptions::RuntimeException )`

Acquires the given number of permits from this semaphore, blocking until all are available, or the thread is interrupted. Acquires the given number of permits, if they are available, and returns immediately, reducing the number of available permits by the given amount.

If insufficient permits are available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of two things happens:

\* Some other thread invokes one of the release methods for this semaphore, the current thread is next to be assigned permits and the number of available permits satisfies this request; or \* Some other thread interrupts the current thread.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while waiting for a permit,

then `InterruptedException` is thrown and the current thread's interrupted status is cleared. Any permits that were to be assigned to this thread are instead assigned to other threads trying to acquire permits, as if permits had been made available by a call to `release()` (p. 2833).

#### Parameters:

*permits* the number of permits to acquire.

#### Exceptions:

*InterruptedException* if the current thread is interrupted.

*IllegalArgumentException* if the permits argument is negative.

*RuntimeException* if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.2** `void decaf::util::concurrent::Semaphore::acquire ()`  
`throw ( decaf::lang::exceptions::InterruptedException,`  
`decaf::lang::exceptions::RuntimeException )`

Acquires a permit from this semaphore, blocking until one is available, or the thread is interrupted. Acquires a permit, if one is available and returns immediately, reducing the number of available permits by one.

If no permit is available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of two things happens:

\* Some other thread invokes the `release()` (p. 2833) method for this semaphore and the current thread is next to be assigned a permit; or \* Some other thread interrupts the current thread.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while waiting for a permit,

then InterruptedException is thrown and the current thread's interrupted status is cleared.

**Exceptions:**

**InterruptedException** - if the current thread is interrupted.

**RuntimeException** if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.3 void decaf::util::concurrent::Semaphore::acquireUninterruptibly (int permits) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )**

Acquires the given number of permits from this semaphore, blocking until all are available. Acquires the given number of permits, if they are available, and returns immediately, reducing the number of available permits by the given amount.

If insufficient permits are available then the current thread becomes disabled for thread scheduling purposes and lies dormant until some other thread invokes one of the release methods for this semaphore, the current thread is next to be assigned permits and the number of available permits satisfies this request.

If the current thread is interrupted while waiting for permits then it will continue to wait and its position in the queue is not affected. When the thread does return from this method its interrupt status will be set.

**Parameters:**

*permits* the number of permits to acquire.

**Exceptions:**

**IllegalArgumentException** if the permits argument is negative.

**RuntimeException** if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.4 void decaf::util::concurrent::Semaphore::acquireUninterruptibly () throw ( decaf::lang::exceptions::RuntimeException )**

Acquires a permit from this semaphore, blocking until one is available. Acquires a permit, if one is available and returns immediately, reducing the number of available permits by one.

If no permit is available then the current thread becomes disabled for thread scheduling purposes and lies dormant until some other thread invokes the **release()** (p. 2833) method for this semaphore and the current thread is next to be assigned a permit.

If the current thread is interrupted while waiting for a permit then it will continue to wait, but the time at which the thread is assigned a permit may change compared to the time it would have received the permit had no interruption occurred. When the thread does return from this method its interrupt status will be set.

**Exceptions:**

**RuntimeException** if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.5   int decaf::util::concurrent::Semaphore::availablePermits () const**

Returns the current number of permits available in this semaphore. This method is typically used for debugging and testing purposes.

**Returns:**

the number of permits available in this semaphore

**6.600.3.6   int decaf::util::concurrent::Semaphore::drainPermits () throw ( decaf::lang::exceptions::RuntimeException )**

Acquires and returns all permits that are immediately available.

**Returns:**

the number of permits acquired

**Exceptions:**

*RuntimeException* if an unexpected error occurs while draining the **Semaphore** (p. 2827).

**6.600.3.7   bool decaf::util::concurrent::Semaphore::isFair () const****Returns:**

true if this semaphore has fairness set true

**6.600.3.8   void decaf::util::concurrent::Semaphore::release (int *permits*)  
              throw ( decaf::lang::exceptions::IllegalArgumentException,  
                      decaf::lang::exceptions::RuntimeException )**

Releases the given number of permits, returning them to the semaphore. Releases the given number of permits, increasing the number of available permits by that amount. If any threads are trying to acquire permits, then one is selected and given the permits that were just released. If the number of available permits satisfies that thread's request then that thread is (re)enabled for thread scheduling purposes; otherwise the thread will wait until sufficient permits are available. If there are still permits available after this thread's request has been satisfied, then those permits are assigned in turn to other threads trying to acquire permits.

**Parameters:**

*permits* the number of permits to release

**Exceptions:**

*IllegalArgumentException* if the permits argument is negative.

*RuntimeException* if an unexpected error occurs while releasing the **Semaphore** (p. 2827).

**6.600.3.9 void decaf::util::concurrent::Semaphore::release () throw ( decaf::lang::exceptions::RuntimeException )**

Releases a permit, returning it to the semaphore. Releases a permit, increasing the number of available permits by one. If any threads are trying to acquire a permit, then one is selected and given the permit that was just released. That thread is (re)enabled for thread scheduling purposes.

There is no requirement that a thread that releases a permit must have acquired that permit by calling **acquire()** (p. 2830). Correct usage of a semaphore is established by programming convention in the application.

**Exceptions:**

*RuntimeException* if an unexpected error occurs while releasing the **Semaphore** (p. 2827).

**6.600.3.10 std::string decaf::util::concurrent::Semaphore::toString () const**

Returns a string identifying this semaphore, as well as its state. The state, in brackets, includes the String "Permits =" followed by the number of permits.

**Returns:**

a string identifying this semaphore, as well as its state

**6.600.3.11 bool decaf::util::concurrent::Semaphore::tryAcquire (int *permits*, long long *timeout*, const TimeUnit & *unit*) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::RuntimeException )**

Acquires the given number of permits from this semaphore, if all become available within the given waiting time and the current thread has not been interrupted. Acquires the given number of permits, if they are available and returns immediately, with the value true, reducing the number of available permits by the given amount.

If insufficient permits are available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

\* Some other thread invokes one of the release methods for this semaphore, the current thread is next to be assigned permits and the number of available permits satisfies this request; or \* Some other thread interrupts the current thread; or \* The specified waiting time elapses.

If the permits are acquired then the value true is returned.

If the current thread:

\* has its interrupted status set on entry to this method; or \* is interrupted while waiting to acquire the permits,

then InterruptedException is thrown and the current thread's interrupted status is cleared. Any permits that were to be assigned to this thread, are instead assigned to other threads trying to acquire permits, as if the permits had been made available by a call to **release()** (p. 2833).

If the specified waiting time elapses then the value false is returned. If the time is less than or equal to zero, the method will not wait at all. Any permits that were to be assigned to this thread, are instead assigned to other threads trying to acquire permits, as if the permits had been made available by a call to **release()** (p. 2833).

**Parameters:**

*permits* the number of permits to acquire  
*timeout* the maximum amount of time to wait to acquire the permits.  
*unit* the units that the timeout param represents.

**Returns:**

true if all permits were acquired and false if the waiting time elapsed before all permits were acquired

**Exceptions:**

*IllegalArgumentException* if the permits argument is negative.  
*RuntimeException* if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.12** `bool decaf::util::concurrent::Semaphore::tryAcquire (int permits)  
 throw ( decaf::lang::exceptions::IllegalArgumentException,  
 decaf::lang::exceptions::RuntimeException )`

Acquires the given number of permits from this semaphore, only if all are available at the time of invocation. Acquires the given number of permits, if they are available, and returns immediately, with the value true, reducing the number of available permits by the given amount.

If insufficient permits are available then this method will return immediately with the value false and the number of available permits is unchanged.

Even when this semaphore has been set to use a fair ordering policy, a call to tryAcquire will immediately acquire a permit if one is available, whether or not other threads are currently waiting. This "barging" behavior can be useful in certain circumstances, even though it breaks fairness. If you want to honor the fairness setting, then use tryAcquire(permits, 0, **TimeUnit.SECONDS** (p. 3214)) which is almost equivalent (it also detects interruption).

**Parameters:**

*permits* the number of permits to acquire

**Returns:**

true if the permits were acquired and false otherwise.

**Exceptions:**

*IllegalArgumentException* if the permits argument is negative.  
*RuntimeException* if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

**6.600.3.13** `bool decaf::util::concurrent::Semaphore::tryAcquire  
 (long long timeout, const TimeUnit & unit) throw  
 ( decaf::lang::exceptions::InterruptedException,  
 decaf::lang::exceptions::RuntimeException )`

Acquires a permit from this semaphore, if one becomes available within the given waiting time and the current thread has not been interrupted. Acquires a permit, if one is available and returns immediately, with the value true, reducing the number of available permits by one.

If no permit is available then the current thread becomes disabled for thread scheduling purposes and lies dormant until one of three things happens:

- \* Some other thread invokes the **release()** (p.2833) method for this semaphore and the current thread is next to be assigned a permit; or
- \* Some other thread interrupts the current thread; or
- \* The specified waiting time elapses.

If a permit is acquired then the value true is returned.

If the current thread:

- \* has its interrupted status set on entry to this method; or
- \* is interrupted while waiting to acquire a permit,

then InterruptedException is thrown and the current thread's interrupted status is cleared.

If the specified waiting time elapses then the value false is returned. If the time is less than or equal to zero, the method will not wait at all.

#### Parameters:

*timeout* the maximum time to wait for a permit

*unit* the time unit of the timeout argument

#### Returns:

true if a permit was acquired and false if the waiting time elapsed before a permit was acquired

#### Exceptions:

**InterruptedException** if the current thread is interrupted.

**RuntimeException** if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

### 6.600.3.14 bool decaf::util::concurrent::Semaphore::tryAcquire () throw ( decaf::lang::exceptions::RuntimeException )

Acquires a permit from this semaphore, only if one is available at the time of invocation. Acquires a permit, if one is available and returns immediately, with the value true, reducing the number of available permits by one.

If no permit is available then this method will return immediately with the value false.

Even when this semaphore has been set to use a fair ordering policy, a call to **tryAcquire()** (p.2835) will immediately acquire a permit if one is available, whether or not other threads are currently waiting. This "barging" behavior can be useful in certain circumstances, even though it breaks fairness. If you want to honor the fairness setting, then use tryAcquire(0, **TimeUnit.SECONDS** (p.3214)) which is almost equivalent (it also detects interruption).

#### Returns:

true if a permit was acquired and false otherwise

#### Exceptions:

**RuntimeException** if an unexpected error occurs while acquiring the **Semaphore** (p. 2827).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**Semaphore.h**

## 6.601 activemq::cmsutil::CmsTemplate::SendExecutor Class Reference

#include <src/main/activemq/cmsutil/CmsTemplate.h> Inheritance diagram for activemq::cmsutil::CmsTemplate::SendExecutor:

### Public Member Functions

- **SendExecutor** (**MessageCreator** \*messageCreator, **CmsTemplate** \*parent)
- virtual **~SendExecutor** ()
- virtual void **doInCms** (**cms::Session** \*session, **cms::MessageProducer** \*producer) throw ( **cms::CMSEException** )

*Execute an action given a session and producer.*

### 6.601.1 Constructor & Destructor Documentation

**6.601.1.1** **activemq::cmsutil::CmsTemplate::SendExecutor::SendExecutor** (**MessageCreator** \* *messageCreator*, **CmsTemplate** \* *parent*) [inline]

**6.601.1.2** **virtual activemq::cmsutil::CmsTemplate::SendExecutor::~~SendExecutor** () [inline, virtual]

### 6.601.2 Member Function Documentation

**6.601.2.1** **virtual void activemq::cmsutil::CmsTemplate::SendExecutor::doInCms** (**cms::Session** \* *session*, **cms::MessageProducer** \* *producer*) throw ( **cms::CMSEException** ) [inline, virtual]

Execute an action given a session and producer.

#### Parameters:

*session* the CMS Session

*producer* the CMS Producer

#### Exceptions:

**cms::CMSEException** (p. 1031) if thrown by CMS API methods

Implements **activemq::cmsutil::ProducerCallback** (p. 2603).

The documentation for this class was generated from the following file:

- src/main/activemq/cmsutil/**CmsTemplate.h**



## 6.602 decaf::net::ServerSocket Class Reference

A server socket class (for testing purposes).

```
#include <src/main/decaf/net/ServerSocket.h>
```

### Public Types

- typedef apr\_socket\_t \* **SocketHandle**
- typedef apr\_sockaddr\_t \* **SocketAddress**

### Public Member Functions

- **ServerSocket** ()  
*Constructor.*
- virtual ~**ServerSocket** ()  
*Destructor.*
- virtual void **bind** (const char \*host, int port) throw ( SocketException )  
*Bind and listen to given IP/dns and port.*
- virtual void **bind** (const char \*host, int port, int backlog) throw ( SocketException )  
*Bind and listen to given IP/dns and port.*
- virtual **Socket** \* **accept** () throw ( SocketException )  
*Blocks until a client connects to the bound socket.*
- virtual void **close** () throw ( lang::Exception )  
*Closes the server socket.*
- virtual bool **isBound** () const

### 6.602.1 Detailed Description

A server socket class (for testing purposes).

### 6.602.2 Member Typedef Documentation

**6.602.2.1** typedef apr\_sockaddr\_t\* decaf::net::ServerSocket::SocketAddress

**6.602.2.2** typedef apr\_socket\_t\* decaf::net::ServerSocket::SocketHandle

### 6.602.3 Constructor & Destructor Documentation

**6.602.3.1** decaf::net::ServerSocket::ServerSocket ()

Constructor. Creates a non-bound server socket.

**6.602.3.2 virtual decaf::net::ServerSocket::~~ServerSocket () [virtual]**

Destructor. Releases socket handle if `close()` (p. 2838) hasn't been called.

**6.602.4 Member Function Documentation****6.602.4.1 virtual Socket\* decaf::net::ServerSocket::accept () throw ( SocketException ) [virtual]**

Blocks until a client connects to the bound socket.

**Returns:**

new socket. Never returns NULL.

**6.602.4.2 virtual void decaf::net::ServerSocket::bind (const char \* *host*, int *port*, int *backlog*) throw ( SocketException ) [virtual]**

Bind and listen to given IP/dns and port.

**Parameters:**

*host* IP address or host name.

*port* TCP port between 1..65535

*backlog* Size of listen backlog.

**6.602.4.3 virtual void decaf::net::ServerSocket::bind (const char \* *host*, int *port*) throw ( SocketException ) [virtual]**

Bind and listen to given IP/dns and port.

**Parameters:**

*host* IP address or host name.

*port* TCP port between 1..65535

**6.602.4.4 virtual void decaf::net::ServerSocket::close () throw ( lang::Exception ) [virtual]**

Closes the server socket.

**6.602.4.5 virtual bool decaf::net::ServerSocket::isBound () const [virtual]****Returns:**

true if the server socket is bound.

The documentation for this class was generated from the following file:

- `src/main/decaf/net/ServerSocket.h`

## 6.603 cms::Session Class Reference

A **Session** (p.2839) object is a single-threaded context for producing and consuming messages.

#include <src/main/cms/Session.h> Inheritance diagram for cms::Session:

### Public Types

- enum **AcknowledgeMode** {  
**AUTO\_ACKNOWLEDGE**, **DUPS\_OK\_ACKNOWLEDGE**, **CLIENT\_-**  
**ACKNOWLEDGE**, **SESSION\_TRANSACTIONED**,  
**INDIVIDUAL\_ACKNOWLEDGE** }

### Public Member Functions

- virtual **~Session** ()
- virtual void **close** ()=0 throw ( CMSEException )  
*Closes this session as well as any active child consumers or producers.*
- virtual void **commit** ()=0 throw ( CMSEException )  
*Commits all messages done in this transaction and releases any locks currently held.*
- virtual void **rollback** ()=0 throw ( CMSEException )  
*Rolls back all messages done in this transaction and releases any locks currently held.*
- virtual void **recover** ()=0 throw ( CMSEException )  
*Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message.*
- virtual **MessageConsumer** \* **createConsumer** (const **Destination** \*destination)=0 throw ( CMSEException )  
*Creates a **MessageConsumer** (p. 2214) for the specified destination.*
- virtual **MessageConsumer** \* **createConsumer** (const **Destination** \*destination, const std::string &selector)=0 throw ( CMSEException )  
*Creates a **MessageConsumer** (p. 2214) for the specified destination, using a message selector.*
- virtual **MessageConsumer** \* **createConsumer** (const **Destination** \*destination, const std::string &selector, bool noLocal)=0 throw ( CMSEException )  
*Creates a **MessageConsumer** (p. 2214) for the specified destination, using a message selector.*
- virtual **MessageConsumer** \* **createDurableConsumer** (const **Topic** \*destination, const std::string &name, const std::string &selector, bool noLocal=false)=0 throw ( CMSEException )  
*Creates a durable subscriber to the specified topic, using a **Message** (p. 2163) selector.*
- virtual **MessageProducer** \* **createProducer** (const **Destination** \*destination)=0 throw ( CMSEException )

*Creates a **MessageProducer** (p. 2332) to send messages to the specified destination.*

- virtual **QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue)=0 throw ( CMSEException )

*Creates a new **QueueBrowser** (p. 2675) to peek at Messages on the given **Queue** (p. 2674).*

- virtual **QueueBrowser** \* **createBrowser** (const **cms::Queue** \*queue, const std::string &selector)=0 throw ( CMSEException )

*Creates a new **QueueBrowser** (p. 2675) to peek at Messages on the given **Queue** (p. 2674).*

- virtual **Queue** \* **createQueue** (const std::string &queueName)=0 throw ( CMSEException )

*Creates a queue identity given a **Queue** (p. 2674) name.*

- virtual **Topic** \* **createTopic** (const std::string &topicName)=0 throw ( CMSEException )

*Creates a topic identity given a **Queue** (p. 2674) name.*

- virtual **TemporaryQueue** \* **createTemporaryQueue** ()=0 throw ( CMSEException )

*Creates a **TemporaryQueue** (p. 3166) object.*

- virtual **TemporaryTopic** \* **createTemporaryTopic** ()=0 throw ( CMSEException )

*Creates a **TemporaryTopic** (p. 3168) object.*

- virtual **Message** \* **createMessage** ()=0 throw ( CMSEException )

*Creates a new **Message** (p. 2163).*

- virtual **BytesMessage** \* **createBytesMessage** ()=0 throw ( CMSEException )

*Creates a **BytesMessage** (p. 938).*

- virtual **BytesMessage** \* **createBytesMessage** (const unsigned char \*bytes, std::size\_t bytesSize)=0 throw ( CMSEException )

*Creates a **BytesMessage** (p. 938) and sets the payload to the passed value.*

- virtual **StreamMessage** \* **createStreamMessage** ()=0 throw ( CMSEException )

*Creates a new **StreamMessage** (p. 3081).*

- virtual **TextMessage** \* **createTextMessage** ()=0 throw ( CMSEException )

*Creates a new **TextMessage** (p. 3170).*

- virtual **TextMessage** \* **createTextMessage** (const std::string &text)=0 throw ( CMSEException )

*Creates a new **TextMessage** (p. 3170) and set the text to the value given.*

- virtual **MapMessage** \* **createMapMessage** ()=0 throw ( CMSEException )

*Creates a new **MapMessage** (p. 2106).*

- virtual **AcknowledgeMode** **getAcknowledgeMode** () const =0 throw ( CMSEException )

*Returns the acknowledgment mode of the session.*

- virtual bool **isTransacted** () const =0 throw ( CMSEException )  
*Gets if the Session is a Transacted **Session** (p. 2839).*
- virtual void **unsubscribe** (const std::string &name)=0 throw ( CMSEException )  
*Unsubscribes a durable subscription that has been created by a client.*

### 6.603.1 Detailed Description

A **Session** (p.2839) object is a single-threaded context for producing and consuming messages. A session serves several purposes:

- It is a factory for its message producers and consumers.
- It supplies provider-optimized message factories.
- It is a factory for TemporaryTopics and TemporaryQueues.
- It provides a way to create **Queue** (p. 2674) or **Topic** (p. 3215) objects for those clients that need to dynamically manipulate provider-specific destination names.
- It supports a single series of transactions that combine work spanning its producers and consumers into atomic units.
- It defines a serial order for the messages it consumes and the messages it produces.
- It retains messages it consumes until they have been acknowledged.
- It serializes execution of message listeners registered with its message consumers.

A session can create and service multiple message producers and consumers.

One typical use is to have a thread block on a synchronous **MessageConsumer** (p. 2214) until a message arrives. The thread may then use one or more of the Session's MessageProducers.

If a client desires to have one thread produce messages while others consume them, the client should use a separate session for its producing thread.

Certain rules apply to a session's **close** method and are detailed below.

- There is no need to close the producers and consumers of a closed session.
- The close call will block until a receive call or message listener in progress has completed. A blocked message consumer receive call returns null when this session is closed.
- Closing a transacted session must roll back the transaction in progress.
- The close method is the only **Session** (p. 2839) method that can be called concurrently.
- Invoking any other **Session** (p. 2839) method on a closed session must throw an **IllegalStateException** (p. 1729). Closing a closed session must not throw any exceptions.

#### Transacted Sessions

When a **Session** (p. 2839) is created it can be set to operate in a Transaction based mode. Each **Session** (p. 2839) then operates in a single transaction for all Producers and Consumers of that **Session** (p. 2839). Messages sent and received within a Transaction are grouped into an atomic unit that is committed or rolled back together.

For a **MessageProducer** (p. 2332) this implies that all messages sent by the producer are not sent to the Provider until the commit call is made. Rolling back the Transaction results in all produced Messages being dropped.

For a **MessageConsumer** (p. 2214) this implies that all received messages are not Acknowledged until the Commit call is made. Rolling back the Transaction results in all Consumed **Message** (p. 2163) being redelivered to the client, the Provider may allow configuration that limits the Maximum number of redeliveries for a **Message** (p. 2163).

Since:

1.0

## 6.603.2 Member Enumeration Documentation

### 6.603.2.1 enum cms::Session::AcknowledgeMode

Enumerator:

**AUTO\_ACKNOWLEDGE** With this acknowledgment mode, the session automatically acknowledges a client's receipt of a message either when the session has successfully returned from a call to receive or when the message listener the session has called to process the message successfully returns.

**DUPS\_OK\_ACKNOWLEDGE** With this acknowledgment mode, the session automatically acknowledges a client's receipt of a message either when the session has successfully returned from a call to receive or when the message listener the session has called to process the message successfully returns. Acknowledgments may be delayed in this mode to increase performance at the cost of the message being redelivered this client fails.

**CLIENT\_ACKNOWLEDGE** With this acknowledgment mode, the client acknowledges a consumed message by calling the message's acknowledge method.

**SESSION\_TRANSACTED** Messages will be consumed when the transaction commits.

**INDIVIDUAL\_ACKNOWLEDGE** **Message** (p. 2163) will be acknowledged individually. Normally the acks sent acknowledge the given message and all messages received before it, this mode only acknowledges one message.

## 6.603.3 Constructor & Destructor Documentation

### 6.603.3.1 virtual cms::Session::~~Session () [inline, virtual]

## 6.603.4 Member Function Documentation

### 6.603.4.1 virtual void cms::Session::close () throw ( CMSEException ) [pure virtual]

Closes this session as well as any active child consumers or producers.

Exceptions:

**CMSEException** (p. 1031) - If an internal error occurs.

Implements **cms::Closeable** (p. 1021).

Implemented in **activemq::cmsutil::PooledSession** (p. 2507), and **activemq::core::ActiveMQSession** (p. 447).

**6.603.4.2** `virtual void cms::Session::commit () throw ( CMSExcption ) [pure virtual]`

Commits all messages done in this transaction and releases any locks currently held.

**Exceptions:**

*CMSExcption* (p. 1031) - If an internal error occurs.

*IllegalStateException* (p. 1729) - if the method is not called by a transacted session.

Implemented in **activemq::cmsutil::PooledSession** (p. 2507), and **activemq::core::ActiveMQSession** (p. 447).

Referenced by **activemq::cmsutil::PooledSession::commit()**.

**6.603.4.3** `virtual QueueBrowser* cms::Session::createBrowser (const cms::Queue * queue, const std::string & selector) throw ( CMSExcption ) [pure virtual]`

Creates a new **QueueBrowser** (p. 2675) to peek at Messages on the given **Queue** (p. 2674).

**Parameters:**

*queue* the **Queue** (p. 2674) to browse

*selector* the **Message** (p. 2163) selector to filter which messages are browsed.

**Returns:**

New **QueueBrowser** (p. 2675) that is owned by the caller.

**Exceptions:**

*CMSExcption* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if the destination given is invalid.

Implemented in **activemq::cmsutil::PooledSession** (p. 2508), and **activemq::core::ActiveMQSession** (p. 447).

**6.603.4.4** `virtual QueueBrowser* cms::Session::createBrowser (const cms::Queue * queue) throw ( CMSExcption ) [pure virtual]`

Creates a new **QueueBrowser** (p. 2675) to peek at Messages on the given **Queue** (p. 2674).

**Parameters:**

*queue* the **Queue** (p. 2674) to browse

**Returns:**

New **QueueBrowser** (p. 2675) that is owned by the caller.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if the destination given is invalid.

Implemented in **activemq::cmsutil::PooledSession** (p. 2508), and **activemq::core::ActiveMQSession** (p. 448).

**6.603.4.5** `virtual BytesMessage* cms::Session::createBytesMessage (const unsigned char * bytes, std::size_t bytesSize) throw ( CMSEException) [pure virtual]`

Creates a **BytesMessage** (p. 938) and sets the payload to the passed value.

**Parameters:**

*bytes* an array of bytes to set in the message

*bytesSize* the size of the bytes array, or number of bytes to use

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2509), and **activemq::core::ActiveMQSession** (p. 448).

**6.603.4.6** `virtual BytesMessage* cms::Session::createBytesMessage () throw ( CMSEException) [pure virtual]`

Creates a **BytesMessage** (p. 938).

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2509), and **activemq::core::ActiveMQSession** (p. 449).

Referenced by `activemq::cmsutil::PooledSession::createBytesMessage()`.

**6.603.4.7** `virtual MessageConsumer* cms::Session::createConsumer (const Destination * destination, const std::string & selector, bool noLocal) throw ( CMSEException ) [pure virtual]`

Creates a **MessageConsumer** (p. 2214) for the specified destination, using a message selector.

**Parameters:**

*destination* the **Destination** (p. 1480) that this consumer receiving messages for.

*selector* the **Message** (p. 2163) Selector to use

*noLocal* if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.



**Returns:**

pointer to a new **MessageConsumer** (p. 2214) that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if an invalid destination is specified.

*InvalidSelectorException* (p. 1816) - if the message selector is invalid.

Implemented in **activemq::cmsutil::PooledSession** (p. 2510), and **activemq::core::ActiveMQSession** (p. 449).

**6.603.4.8** virtual **MessageConsumer\*** **cms::Session::createConsumer** (**const** **Destination** \* *destination*, **const** **std::string** & *selector*) **throw** ( **CMSEException** ) [pure virtual]

Creates a **MessageConsumer** (p. 2214) for the specified destination, using a message selector.

**Parameters:**

*destination* the **Destination** (p. 1480) that this consumer receiving messages for.

*selector* the **Message** (p. 2163) Selector to use

**Returns:**

pointer to a new **MessageConsumer** (p. 2214) that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if an invalid destination is specified.

*InvalidSelectorException* (p. 1816) - if the message selector is invalid.

Implemented in **activemq::cmsutil::PooledSession** (p. 2510), and **activemq::core::ActiveMQSession** (p. 449).

**6.603.4.9** virtual **MessageConsumer\*** **cms::Session::createConsumer** (**const** **Destination** \* *destination*) **throw** ( **CMSEException** ) [pure virtual]

Creates a **MessageConsumer** (p. 2214) for the specified destination.

**Parameters:**

*destination* the **Destination** (p. 1480) that this consumer receiving messages for.

**Returns:**

pointer to a new **MessageConsumer** (p. 2214) that is owned by the caller ( caller deletes )

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if an invalid destination is specified.

Implemented in **activemq::cmsutil::PooledSession** (p. 2511), and **activemq::core::ActiveMQSession** (p. 450).

Referenced by **activemq::cmsutil::PooledSession::createConsumer()**.

**6.603.4.10** **virtual MessageConsumer\* cms::Session::createDurableConsumer (const Topic \* *destination*, const std::string & *name*, const std::string & *selector*, bool *noLocal* = false) throw ( CMSEException )** [pure virtual]

Creates a durable subscriber to the specified topic, using a **Message** (p. 2163) selector. Sessions that create durable consumers must use the same client Id as was used the last time the subscription was created in order to receive all messages that were delivered while the client was offline.

#### Parameters:

*destination* the topic to subscribe to

*name* The name used to identify the subscription

*selector* the **Message** (p. 2163) Selector to use

*noLocal* if true, and the destination is a topic, inhibits the delivery of messages published by its own connection. The behavior for NoLocal is not specified if the destination is a queue.

#### Returns:

pointer to a new durable **MessageConsumer** (p. 2214) that is owned by the caller ( caller deletes )

#### Exceptions:

*CMSEException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if an invalid destination is specified.

*InvalidSelectorException* (p. 1816) - if the message selector is invalid.

Implemented in **activemq::cmsutil::PooledSession** (p. 2511), and **activemq::core::ActiveMQSession** (p. 450).

Referenced by **activemq::cmsutil::PooledSession::createDurableConsumer()**.

**6.603.4.11** **virtual MapMessage\* cms::Session::createMapMessage () throw ( CMSEException )** [pure virtual]

Creates a new **MapMessage** (p. 2106).

#### Exceptions:

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2512), and **activemq::core::ActiveMQSession** (p. 450).

Referenced by **activemq::cmsutil::PooledSession::createMapMessage()**.

**6.603.4.12** `virtual Message* cms::Session::createMessage () throw ( CMSException ) [pure virtual]`

Creates a new **Message** (p. 2163).

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2512), and **activemq::core::ActiveMQSession** (p. 451).

Referenced by **activemq::cmsutil::PooledSession::createMessage()**.

**6.603.4.13** `virtual MessageProducer* cms::Session::createProducer (const Destination * destination) throw ( CMSException ) [pure virtual]`

Creates a **MessageProducer** (p. 2332) to send messages to the specified destination.

**Parameters:**

*destination* the **Destination** (p. 1480) to send on

**Returns:**

New **MessageProducer** (p. 2332) that is owned by the caller.

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

*InvalidDestinationException* (p. 1809) - if an invalid destination is specified.

Implemented in **activemq::cmsutil::PooledSession** (p. 2512), and **activemq::core::ActiveMQSession** (p. 451).

Referenced by **activemq::cmsutil::PooledSession::createProducer()**.

**6.603.4.14** `virtual Queue* cms::Session::createQueue (const std::string & queueName) throw ( CMSException ) [pure virtual]`

Creates a queue identity given a **Queue** (p. 2674) name.

**Parameters:**

*queueName* the name of the new **Queue** (p. 2674)

**Returns:**

new **Queue** (p. 2674) pointer that is owned by the caller.

**Exceptions:**

*CMSException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2513), and **activemq::core::ActiveMQSession** (p. 451).

Referenced by **activemq::cmsutil::PooledSession::createQueue()**.

**6.603.4.15** `virtual StreamMessage* cms::Session::createStreamMessage () throw (CMSEException ) [pure virtual]`

Creates a new **StreamMessage** (p. 3081).

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2513), and **activemq::core::ActiveMQSession** (p. 451).

Referenced by **activemq::cmsutil::PooledSession::createStreamMessage()**.

**6.603.4.16** `virtual TemporaryQueue* cms::Session::createTemporaryQueue () throw ( CMSEException ) [pure virtual]`

Creates a **TemporaryQueue** (p. 3166) object.

**Returns:**

new **TemporaryQueue** (p. 3166) pointer that is owned by the caller.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2514), and **activemq::core::ActiveMQSession** (p. 452).

Referenced by **activemq::cmsutil::PooledSession::createTemporaryQueue()**.

**6.603.4.17** `virtual TemporaryTopic* cms::Session::createTemporaryTopic () throw ( CMSEException ) [pure virtual]`

Creates a **TemporaryTopic** (p. 3168) object.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2514), and **activemq::core::ActiveMQSession** (p. 452).

Referenced by **activemq::cmsutil::PooledSession::createTemporaryTopic()**.

**6.603.4.18** `virtual TextMessage* cms::Session::createTextMessage (const std::string & text) throw ( CMSEException ) [pure virtual]`

Creates a new **TextMessage** (p. 3170) and set the text to the value given.

**Parameters:**

*text* the initial text for the message

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2514), and **activemq::core::ActiveMQSession** (p. 452).

#### 6.603.4.19 virtual TextMessage\* cms::Session::createTextMessage () throw ( CMSEException ) [pure virtual]

Creates a new **TextMessage** (p. 3170).

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2514), and **activemq::core::ActiveMQSession** (p. 452).

Referenced by **activemq::cmsutil::PooledSession::createTextMessage()**.

#### 6.603.4.20 virtual Topic\* cms::Session::createTopic (const std::string & topicName) throw ( CMSEException ) [pure virtual]

Creates a topic identity given a **Queue** (p. 2674) name.

**Parameters:**

*topicName* the name of the new **Topic** (p. 3215)

**Returns:**

new **Topic** (p. 3215) pointer that is owned by the caller.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2515), and **activemq::core::ActiveMQSession** (p. 453).

Referenced by **activemq::cmsutil::PooledSession::createTopic()**.

#### 6.603.4.21 virtual AcknowledgeMode cms::Session::getAcknowledgeMode () const throw ( CMSEException ) [pure virtual]

Returns the acknowledgment mode of the session.

**Returns:**

the Sessions Acknowledge Mode

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2515), and **activemq::core::ActiveMQSession** (p. 454).

Referenced by **activemq::cmsutil::PooledSession::getAcknowledgeMode()**.

**6.603.4.22** **virtual bool cms::Session::isTransacted () const throw ( CMSEException ) [pure virtual]**

Gets if the Sessions is a Transacted **Session** (p. 2839).

#### Returns:

transacted true - false.

#### Exceptions:

**CMSEException** (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2516), and **activemq::core::ActiveMQSession** (p. 456).

Referenced by **activemq::cmsutil::PooledSession::isTransacted()**.

**6.603.4.23** **virtual void cms::Session::recover () throw ( CMSEException ) [pure virtual]**

Stops message delivery in this session, and restarts message delivery with the oldest unacknowledged message. All consumers deliver messages in a serial order. Acknowledging a received message automatically acknowledges all messages that have been delivered to the client.

Restarting a session causes it to take the following actions:

- Stop message delivery
- Mark all messages that might have been delivered but not acknowledged as "redelivered"
- Restart the delivery sequence including all unacknowledged messages that had been previously delivered. Redelivered messages do not have to be delivered in exactly their original delivery order.

#### Exceptions:

**CMSEException** (p. 1031) - if the CMS provider fails to stop and restart message delivery due to some internal error.

**IllegalStateException** (p. 1729) - if the method is called by a transacted session.

Implemented in **activemq::cmsutil::PooledSession** (p. 2516), and **activemq::core::ActiveMQSession** (p. 456).

Referenced by **activemq::cmsutil::PooledSession::recover()**.

**6.603.4.24** **virtual void cms::Session::rollback () throw ( CMSEException ) [pure virtual]**

Rolls back all messages done in this transaction and releases any locks currently held.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

*IllegalStateException* (p. 1729) - if the method is not called by a transacted session.

Implemented in **activemq::cmsutil::PooledSession** (p. 2517), and **activemq::core::ActiveMQSession** (p. 457).

Referenced by **activemq::cmsutil::PooledSession::rollback()**.

**6.603.4.25 virtual void cms::Session::unsubscribe (const std::string & name) throw ( CMSEException ) [pure virtual]**

Unsubscribes a durable subscription that has been created by a client. This method deletes the state being maintained on behalf of the subscriber by its provider. It is erroneous for a client to delete a durable subscription while there is an active **MessageConsumer** (p. 2214) or **Subscriber** for the subscription, or while a consumed message is part of a pending transaction or has not been acknowledged in the session.

**Parameters:**

*name* The name used to identify this subscription

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in **activemq::cmsutil::PooledSession** (p. 2517), and **activemq::core::ActiveMQSession** (p. 458).

Referenced by **activemq::cmsutil::PooledSession::unsubscribe()**.

The documentation for this class was generated from the following file:

- **src/main/cms/Session.h**

## 6.604 activemq::cmsutil::SessionCallback Class Reference

Callback for executing any number of operations on a provided CMS Session.

#include <src/main/activemq/cmsutil/SessionCallback.h> Inheritance diagram for activemq::cmsutil::SessionCallback:

### Public Member Functions

- virtual `~SessionCallback ()`
- virtual void `doInCms (cms::Session *session)=0` throw ( cms::CMSEException )

*Execute any number of operations against the supplied CMS session.*

#### 6.604.1 Detailed Description

Callback for executing any number of operations on a provided CMS Session.

#### 6.604.2 Constructor & Destructor Documentation

- 6.604.2.1** virtual `activemq::cmsutil::SessionCallback::~~SessionCallback ()` [inline, virtual]

#### 6.604.3 Member Function Documentation

- 6.604.3.1** virtual void `activemq::cmsutil::SessionCallback::doInCms (cms::Session * session)` throw ( cms::CMSEException ) [pure virtual]

Execute any number of operations against the supplied CMS session.

#### Parameters:

*session* the CMS Session

#### Exceptions:

*cms::CMSEException* (p. 1031) if thrown by CMS API methods

Implemented in `activemq::cmsutil::CmsTemplate::ProducerExecutor` (p. 2604), and `activemq::cmsutil::CmsTemplate::ReceiveExecutor` (p. 2690).

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/SessionCallback.h`



## 6.605 activemq::commands::SessionId Class Reference

#include <src/main/activemq/commands/SessionId.h> Inheritance diagram for activemq::commands::SessionId:

### Public Types

- typedef decaf::lang::PointerComparator< SessionId > COMPARATOR

### Public Member Functions

- SessionId ()
- SessionId (const SessionId &other)
- SessionId (const ConnectionId \*connectionId, long long sessionId)
- SessionId (const ProducerId \*producerId)
- SessionId (const ConsumerId \*consumerId)
- virtual ~SessionId ()
- virtual unsigned char getDataStructureType () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual SessionId \* cloneDataStructure () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void copyDataStructure (const DataStructure \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string toString () const  
*Returns a string containing the information for this DataStructure (p. 1461) such as its type and value of its elements.*
- virtual bool equals (const DataStructure \*value) const  
*Compares the DataStructure (p. 1461) passed in to this one, and returns if they are equivalent.*
- const Pointer< ConnectionId > & getParentId () const
- virtual const std::string & getConnectionId () const
- virtual std::string & getConnectionId ()
- virtual void setConnectionId (const std::string &connectionId)
- virtual long long getValue () const
- virtual void setValue (long long value)
- virtual int compareTo (const SessionId &value) const
- virtual bool equals (const SessionId &value) const
- virtual bool operator== (const SessionId &value) const
- virtual bool operator< (const SessionId &value) const
- SessionId & operator= (const SessionId &other)

## Static Public Attributes

- static const unsigned char **ID\_SESSIONID** = 121

## Protected Attributes

- std::string **connectionId**
- long long **value**

## 6.605.1 Member Typedef Documentation

- 6.605.1.1**    `typedef decaf::lang::PointerComparator<SessionId>  
activemq::commands::SessionId::COMPARATOR`

## 6.605.2 Constructor & Destructor Documentation

- 6.605.2.1**    `activemq::commands::SessionId::SessionId ()`
- 6.605.2.2**    `activemq::commands::SessionId::SessionId (const SessionId & other)`
- 6.605.2.3**    `activemq::commands::SessionId::SessionId (const ConnectionId *  
connectionId, long long sessionId)`
- 6.605.2.4**    `activemq::commands::SessionId::SessionId (const ProducerId *  
producerId)`
- 6.605.2.5**    `activemq::commands::SessionId::SessionId (const ConsumerId *  
consumerId)`
- 6.605.2.6**    `virtual activemq::commands::SessionId::~~SessionId () [virtual]`

## 6.605.3 Member Function Documentation

- 6.605.3.1**    `virtual SessionId* activemq::commands::SessionId::cloneDataStructure ()  
const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

- 6.605.3.2**    `virtual int activemq::commands::SessionId::compareTo (const SessionId  
& value) const [virtual]`
- 6.605.3.3**    `virtual void activemq::commands::SessionId::copyDataStructure (const  
DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

**Parameters:**

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.605.3.4** `virtual bool activemq::commands::SessionId::equals (const SessionId & value) const` [virtual]

**6.605.3.5** `virtual bool activemq::commands::SessionId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.605.3.6** `virtual std::string& activemq::commands::SessionId::getConnectionId ()` [virtual]

**6.605.3.7** `virtual const std::string& activemq::commands::SessionId::getConnectionId () const` [virtual]

Referenced by `activemq::commands::ConsumerId::ConsumerId()`, and `activemq::commands::ProducerId::ProducerId()`.

**6.605.3.8** `virtual unsigned char activemq::commands::SessionId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

**6.605.3.9** `const Pointer<ConnectionId>& activemq::commands::SessionId::getParentId () const`

**6.605.3.10** `virtual long long activemq::commands::SessionId::getValue () const` [virtual]

Referenced by `activemq::commands::ConsumerId::ConsumerId()`, and `activemq::commands::ProducerId::ProducerId()`.

- 6.605.3.11 `virtual bool activemq::commands::SessionId::operator< (const SessionId & value) const [virtual]`
- 6.605.3.12 `SessionId& activemq::commands::SessionId::operator= (const SessionId & other)`
- 6.605.3.13 `virtual bool activemq::commands::SessionId::operator== (const SessionId & value) const [virtual]`
- 6.605.3.14 `virtual void activemq::commands::SessionId::setConnectionId (const std::string & connectionId) [virtual]`
- 6.605.3.15 `virtual void activemq::commands::SessionId::setValue (long long value) [virtual]`
- 6.605.3.16 `virtual std::string activemq::commands::SessionId::toString () const [virtual]`

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p.718).

## 6.605.4 Field Documentation

- 6.605.4.1 `std::string activemq::commands::SessionId::connectionId [protected]`
- 6.605.4.2 `const unsigned char activemq::commands::SessionId::ID_SESSIONID = 121 [static]`

Referenced by `activemq::state::CommandVisitorAdapter::processRemoveInfo()`.

- 6.605.4.3 `long long activemq::commands::SessionId::value [protected]`

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/SessionId.h`

## 6.606 activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2857).

#include <src/main/activemq/wireformat/openwire/marshal/v5/SessionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller:

### Public Member Functions

- **SessionIdMarshaller** ()
- virtual **~SessionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.606.1 Detailed Description

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2857). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.606.2 Constructor & Destructor Documentation

**6.606.2.1** `activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::SessionIdMarshaller()` [inline]

**6.606.2.2** `virtual activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::~~SessionIdMarshaller()` [inline, virtual]

## 6.606.3 Member Function Documentation

**6.606.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.606.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.606.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.606.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.606.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.606.3.6** virtual void activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.606.3.7** virtual void activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/SessionIdMarshaller.h



## 6.607 activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2861).

#include <src/main/activemq/wireformat/openwire/marshal/v1/SessionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller:

### Public Member Functions

- **SessionIdMarshaller** ()
- virtual **~SessionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.607.1 Detailed Description

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2861). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.607.2 Constructor & Destructor Documentation

**6.607.2.1** `activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::SessionIdMarshaller()` [inline]

**6.607.2.2** `virtual activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::~~SessionIdMarshaller()` [inline, virtual]

## 6.607.3 Member Function Documentation

**6.607.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.607.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::getDataSetType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.607.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.607.3.4** virtual void **activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.607.3.5** virtual int **activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::tightMarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.607.3.6** virtual void activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.607.3.7** virtual void activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**SessionIdMarshaller.h**

## 6.608 activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2865).

#include <src/main/activemq/wireformat/openwire/marshal/v2/SessionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller:

### Public Member Functions

- **SessionIdMarshaller** ()
- virtual **~SessionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.608.1 Detailed Description

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2865). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.608.2 Constructor & Destructor Documentation

**6.608.2.1** `activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::SessionIdMarshaller()` [inline]

**6.608.2.2** `virtual activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::~~SessionIdMarshaller()` [inline, virtual]

## 6.608.3 Member Function Documentation

**6.608.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.608.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.608.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.608.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.608.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.608.3.6** virtual void activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.608.3.7** virtual void activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**SessionIdMarshaller.h**



## 6.609 activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2869).

#include <src/main/activemq/wireformat/openwire/marshal/v4/SessionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller:

### Public Member Functions

- **SessionIdMarshaller** ()
- virtual **~SessionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.609.1 Detailed Description

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2869). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.609.2 Constructor & Destructor Documentation

**6.609.2.1** `activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::SessionIdMarshaller()` [inline]

**6.609.2.2** `virtual activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::~~SessionIdMarshaller()` [inline, virtual]

## 6.609.3 Member Function Documentation

**6.609.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.609.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::getDataSetType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.609.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1430).

**6.609.3.4** virtual void **activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::looseUnmarshal** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **decaf::io::DataInputStream** \* *dataIn*) throw ( **decaf::io::IOException** ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1436).

**6.609.3.5** virtual int **activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::tightMarshal1** (**OpenWireFormat** \* *wireFormat*, **commands::DataStructure** \* *dataStructure*, **utils::BooleanStream** \* *bs*) throw ( **decaf::io::IOException** ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1442).

**6.609.3.6** virtual void activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.609.3.7** virtual void activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/SessionIdMarshaller.h

## 6.610 activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2873).

#include <src/main/activemq/wireformat/openwire/marshal/v3/SessionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller:

### Public Member Functions

- **SessionIdMarshaller** ()
- virtual **~SessionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.610.1 Detailed Description

Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2873). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.610.2 Constructor & Destructor Documentation

**6.610.2.1** `activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::SessionIdMarshaller()` [inline]

**6.610.2.2** `virtual activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::~~SessionIdMarshaller()` [inline, virtual]

## 6.610.3 Member Function Documentation

**6.610.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.610.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.610.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.610.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.610.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.610.3.6** virtual void activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.610.3.7** virtual void activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/SessionIdMarshaller.h



## 6.611 activemq::commands::SessionInfo Class Reference

#include <src/main/activemq/commands/SessionInfo.h> Inheritance diagram for activemq::commands::SessionInfo:

### Public Member Functions

- **SessionInfo** ()
- virtual **~SessionInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **SessionInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- unsigned int **getAckMode** () const
- void **setAckMode** (unsigned int mode)
- virtual const **Pointer**< **SessionId** > & **getSessionId** () const
- virtual **Pointer**< **SessionId** > & **getSessionId** ()
- virtual void **setSessionId** (const **Pointer**< **SessionId** > &sessionId)
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_SESSIONINFO** = 4

### Protected Member Functions

- **SessionInfo** (const **SessionInfo** &)
- **SessionInfo** & **operator=** (const **SessionInfo** &)

## Protected Attributes

- `Pointer< SessionId > sessionId`

### 6.611.1 Constructor & Destructor Documentation

**6.611.1.1** `activemq::commands::SessionInfo::SessionInfo (const SessionInfo &)`  
[inline, protected]

**6.611.1.2** `activemq::commands::SessionInfo::SessionInfo ()`

**6.611.1.3** `virtual activemq::commands::SessionInfo::~~SessionInfo ()` [virtual]

### 6.611.2 Member Function Documentation

**6.611.2.1** `virtual SessionInfo* activemq::commands::SessionInfo::cloneDataStructure ()`  
`const` [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.611.2.2** `virtual void activemq::commands::SessionInfo::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

#### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.611.2.3** `virtual bool activemq::commands::SessionInfo::equals (const DataStructure * value) const` [virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

#### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.611.2.4** `unsigned int activemq::commands::SessionInfo::getAckMode () const`  
[inline]

**6.611.2.5** `virtual unsigned char activemq::commands::SessionInfo::getDataStructureType ()`  
`const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.611.2.6** `virtual Pointer<SessionId>& activemq::commands::SessionInfo::getSessionId ()`  
[virtual]

**6.611.2.7** `virtual const Pointer<SessionId>& activemq::commands::SessionInfo::getSessionId () const`  
[virtual]

**6.611.2.8** `SessionInfo& activemq::commands::SessionInfo::operator= (const SessionInfo &)` [inline, protected]

**6.611.2.9** `void activemq::commands::SessionInfo::setAckMode (unsigned int mode)`  
[inline]

**6.611.2.10** `virtual void activemq::commands::SessionInfo::setSessionId (const Pointer< SessionId > & sessionId)` [virtual]

**6.611.2.11** `virtual std::string activemq::commands::SessionInfo::toString () const`  
[virtual]

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.611.2.12** `virtual Pointer<Command> activemq::commands::SessionInfo::visit (activemq::state::CommandVisitor * visitor) throw ( exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p.1067).

### 6.611.3 Field Documentation

**6.611.3.1** `const unsigned char activemq::commands::SessionInfo::ID_SESSIONINFO = 4` [static]

**6.611.3.2** `Pointer<SessionId> activemq::commands::SessionInfo::sessionId` [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/SessionInfo.h`

## 6.612 activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2881).

#include <src/main/activemq/wireformat/openwire/marshal/v2/SessionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller:

### Public Member Functions

- **SessionInfoMarshaller** ()
- virtual **~SessionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.612.1 Detailed Description

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2881). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.612.2 Constructor & Destructor Documentation

**6.612.2.1** `activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::SessionInfoMarshaller()` [inline]

**6.612.2.2** `virtual activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::~~SessionInfoMarshaller()` [inline, virtual]

## 6.612.3 Member Function Documentation

**6.612.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.612.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.612.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 686).

**6.612.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 687).

**6.612.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

#### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

#### Returns:

int value indicating the size of the marshaled object.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller` (p. 688).

**6.612.3.6** virtual void activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.612.3.7** virtual void activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/SessionInfoMarshaller.h



## 6.613 activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2885).

#include <src/main/activemq/wireformat/openwire/marshal/v1/SessionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller:

### Public Member Functions

- **SessionInfoMarshaller** ()
- virtual **~SessionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.613.1 Detailed Description

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2885). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.613.2 Constructor & Destructor Documentation

**6.613.2.1** `activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::SessionInfoMarshaller()` [inline]

**6.613.2.2** `virtual activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::~~SessionInfoMarshaller()` [inline, virtual]

## 6.613.3 Member Function Documentation

**6.613.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.613.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.613.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 665).

**6.613.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 666).

**6.613.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller` (p. 667).

**6.613.3.6** virtual void activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.613.3.7** virtual void activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**SessionInfoMarshaller.h**

## 6.614 activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2889).

#include <src/main/activemq/wireformat/openwire/marshal/v4/SessionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller:

### Public Member Functions

- **SessionInfoMarshaller** ()
- virtual **~SessionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.614.1 Detailed Description

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2889). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.614.2 Constructor & Destructor Documentation

**6.614.2.1** `activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::SessionInfoMarshaller()` [inline]

**6.614.2.2** `virtual activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::~~SessionInfoMarshaller()` [inline, virtual]

## 6.614.3 Member Function Documentation

**6.614.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.614.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.614.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.614.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.614.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.614.3.6** virtual void activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.614.3.7** virtual void activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/SessionInfoMarshaller.h



## 6.615 activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2893).

#include <src/main/activemq/wireformat/openwire/marshal/v5/SessionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller:

### Public Member Functions

- **SessionInfoMarshaller** ()
- virtual **~SessionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.615.1 Detailed Description

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2893). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.615.2 Constructor & Destructor Documentation

**6.615.2.1** `activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::SessionInfoMarshaller()` [inline]

**6.615.2.2** `virtual activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::~~SessionInfoMarshaller()` [inline, virtual]

## 6.615.3 Member Function Documentation

**6.615.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.615.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.615.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.615.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.615.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.615.3.6** virtual void activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.615.3.7** virtual void activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**SessionInfoMarshaller.h**

## 6.616 activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2897).

#include <src/main/activemq/wireformat/openwire/marshal/v3/SessionInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller:

### Public Member Functions

- **SessionInfoMarshaller** ()
- virtual **~SessionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.616.1 Detailed Description

Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p.2897). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.616.2 Constructor & Destructor Documentation

**6.616.2.1** `activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::SessionInfoMarshaller()` [inline]

**6.616.2.2** `virtual activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::~~SessionInfoMarshaller()` [inline, virtual]

## 6.616.3 Member Function Documentation

**6.616.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.616.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.616.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.616.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.616.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.616.3.6** virtual void activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.616.3.7** virtual void activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/SessionInfoMarshaller.h



## 6.617 activemq::cmsutil::SessionPool Class Reference

A pool of CMS sessions from the same connection and with the same acknowledge mode.

```
#include <src/main/activemq/cmsutil/SessionPool.h>
```

### Public Member Functions

- **SessionPool** (**cms::Connection** \*connection, **cms::Session::AcknowledgeMode** acknowledgeMode, **ResourceLifecycleManager** \*resourceLifecycleManager)  
*Constructs a session pool.*
- virtual **~SessionPool** ()  
*Destroys the pooled session objects, but not the underlying session resources.*
- virtual **PooledSession** \* **takeSession** () throw ( cms::CMSException )  
*Takes a session from the pool, creating one if necessary.*
- virtual void **returnSession** (**PooledSession** \*session)  
*Returns a session to the pool.*
- **ResourceLifecycleManager** \* **getResourceLifecycleManager** ()

### 6.617.1 Detailed Description

A pool of CMS sessions from the same connection and with the same acknowledge mode. Internal session resources are managed through a provided **ResourceLifecycleManager** (p. 2778), not by this pool. This class is thread-safe.

### 6.617.2 Constructor & Destructor Documentation

#### 6.617.2.1 activemq::cmsutil::SessionPool::SessionPool (**cms::Connection** \* connection, **cms::Session::AcknowledgeMode** acknowledgeMode, **ResourceLifecycleManager** \* resourceLifecycleManager)

Constructs a session pool.

#### Parameters:

**connection** the connection to be used for creating all sessions.

**acknowledgeMode** the acknowledge mode to be used for all sessions

**resourceLifecycleManager** the object responsible for managing the lifecycle of any allocated **cms::Session** (p. 2839) resources.

#### 6.617.2.2 virtual activemq::cmsutil::SessionPool::~SessionPool () [virtual]

Destroys the pooled session objects, but not the underlying session resources. That is the job of the **ResourceLifecycleManager** (p. 2778).

### 6.617.3 Member Function Documentation

**6.617.3.1** `ResourceLifecycleManager* activemq::cmsutil::SessionPool::getResourceLifecycleManager()` [inline]

**6.617.3.2** `virtual void activemq::cmsutil::SessionPool::returnSession (PooledSession * session)` [virtual]

Returns a session to the pool.

**Parameters:**

*session* the session to be returned.

**6.617.3.3** `virtual PooledSession* activemq::cmsutil::SessionPool::takeSession ()`  
`throw ( cms::CMSException )` [virtual]

Takes a session from the pool, creating one if necessary.

**Returns:**

the pooled session object

**Exceptions:**

*cms::CMSException* (p. 1031) if an error occurred

The documentation for this class was generated from the following file:

- `src/main/activemq/cmsutil/SessionPool.h`

## 6.618 activemq::state::SessionState Class Reference

```
#include <src/main/activemq/state/SessionState.h>
```

### Public Member Functions

- **SessionState** (const **Pointer**< **SessionInfo** > &info)
- virtual **~SessionState** ()
- std::string **toString** () const
- const **Pointer**< **SessionInfo** > **getInfo** () const
- void **addProducer** (const **Pointer**< **ProducerInfo** > &info)
- **Pointer**< **ProducerState** > **removeProducer** (const **Pointer**< **ProducerId** > &id)
- void **addConsumer** (const **Pointer**< **ConsumerInfo** > &info)
- **Pointer**< **ConsumerState** > **removeConsumer** (const **Pointer**< **ConsumerId** > &id)
- std::vector< **Pointer**< **ProducerState** > > **getProducerStates** () const
- **Pointer**< **ProducerState** > **getProducerState** (const **Pointer**< **ProducerId** > &id)
- std::vector< **Pointer**< **ConsumerState** > > **getConsumerStates** () const
- **Pointer**< **ConsumerState** > **getConsumerState** (const **Pointer**< **ConsumerId** > &id)
- void **checkShutdown** () const
- void **shutdown** ()

## 6.618.1 Constructor & Destructor Documentation

**6.618.1.1** `activemq::state::SessionState::SessionState (const Pointer< SessionInfo > & info)`

**6.618.1.2** `virtual activemq::state::SessionState::~~SessionState ()` [virtual]

## 6.618.2 Member Function Documentation

**6.618.2.1** `void activemq::state::SessionState::addConsumer (const Pointer< ConsumerInfo > & info)` [inline]

**6.618.2.2** `void activemq::state::SessionState::addProducer (const Pointer< ProducerInfo > & info)` [inline]

**6.618.2.3** `void activemq::state::SessionState::checkShutdown ()` const

**6.618.2.4** `Pointer<ConsumerState> activemq::state::SessionState::getConsumerState (const Pointer< ConsumerId > & id)` [inline]

**6.618.2.5** `std::vector< Pointer<ConsumerState> > activemq::state::SessionState::getConsumerStates ()` const [inline]

**6.618.2.6** `const Pointer<SessionInfo> activemq::state::SessionState::getInfo ()` const [inline]

**6.618.2.7** `Pointer<ProducerState> activemq::state::SessionState::getProducerState (const Pointer< ProducerId > & id)` [inline]

**6.618.2.8** `std::vector< Pointer<ProducerState> > activemq::state::SessionState::getProducerStates ()` const [inline]

**6.618.2.9** `Pointer<ConsumerState> activemq::state::SessionState::removeConsumer (const Pointer< ConsumerId > & id)` [inline]

**6.618.2.10** `Pointer<ProducerState> activemq::state::SessionState::removeProducer (const Pointer< ProducerId > & id)` [inline]

**6.618.2.11** `void activemq::state::SessionState::shutdown ()` [inline]

**6.618.2.12** `std::string activemq::state::SessionState::toString ()` const

The documentation for this class was generated from the following file:

- `src/main/activemq/state/SessionState.h`

## 6.619 decaf::util::Set< E > Class Template Reference

A collection that contains no duplicate elements.

#include <src/main/decaf/util/Set.h> Inheritance diagram for decaf::util::Set< E >:

### Public Member Functions

- virtual `~Set ()`

#### 6.619.1 Detailed Description

**template<typename E> class decaf::util::Set< E >**

A collection that contains no duplicate elements. More formally, sets contain no pair of elements `e1` and `e2` such that `e1 == e2`, and at most one null element. As implied by its name, this interface models the mathematical set abstraction.

The additional stipulation on constructors is, not surprisingly, that all constructors must create a set that contains no duplicate elements (as defined above).

Note: Great care must be exercised if mutable objects are used as set elements. The behavior of a set is not specified if the value of an object is changed in a manner that affects equals comparisons while the object is an element in the set.

**Since:**

1.0

#### 6.619.2 Constructor & Destructor Documentation

**6.619.2.1** **template<typename E> virtual decaf::util::Set< E >::~~Set ()** [inline, virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Set.h`

## 6.620 decaf::lang::Short Class Reference

#include <src/main/decaf/lang/Short.h> Inheritance diagram for decaf::lang::Short:

### Public Member Functions

- **Short** (short value)
- **Short** (const std::string &value) throw ( exceptions::NumberFormatException )
- virtual ~**Short** ()
- virtual int **compareTo** (const **Short** &s) const  
*Compares this **Short** (p. 2906) instance with another.*
- bool **equals** (const **Short** &s) const
- virtual bool **operator==** (const **Short** &s) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **Short** &s) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual int **compareTo** (const short &s) const  
*Compares this **Short** (p. 2906) instance with another.*
- bool **equals** (const short &s) const
- virtual bool **operator==** (const short &s) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const short &s) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **toString** () const
- virtual double **doubleValue** () const  
*Answers the double value which the receiver represents.*
- virtual float **floatValue** () const  
*Answers the float value which the receiver represents.*
- virtual unsigned char **byteValue** () const  
*Answers the byte value which the receiver represents.*
- virtual short **shortValue** () const  
*Answers the short value which the receiver represents.*
- virtual int **intValue** () const  
*Answers the int value which the receiver represents.*
- virtual long long **longValue** () const  
*Answers the long value which the receiver represents.*

## Static Public Member Functions

- static std::string **toString** (short value)
- static **Short decode** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Decodes a String into a **Short** (p. 2906).*
- static short **reverseBytes** (short value)  
*Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified short value.*
- static short **parseShort** (const std::string &s, int radix) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed short in the radix specified by the second argument.*
- static short **parseShort** (const std::string &s) throw ( exceptions::NumberFormatException )  
*Parses the string argument as a signed decimal short.*
- static **Short valueOf** (short value)  
*Returns a **Short** (p. 2906) instance representing the specified short value.*
- static **Short valueOf** (const std::string &value) throw ( exceptions::NumberFormatException )  
*Returns a **Short** (p. 2906) object holding the value given by the specified std::string.*
- static **Short valueOf** (const std::string &value, int radix) throw ( exceptions::NumberFormatException )  
*Returns a **Short** (p. 2906) object holding the value extracted from the specified std::string when parsed with the radix given by the second argument.*

## Static Public Attributes

- static const int **SIZE** = 16  
*Size of this objects primitive type in bits.*
- static const short **MAX\_VALUE** = (short)0x7FFF  
*Max Value for this Object's primitive type.*
- static const short **MIN\_VALUE** = (short)0x8000  
*Max Value for this Object's primitive type.*

## 6.620.1 Constructor & Destructor Documentation

### 6.620.1.1 decaf::lang::Short::Short (short value)

#### Parameters:

*value* - short to wrap

**6.620.1.2**   `decaf::lang::Short::Short (const std::string & value) throw (exceptions::NumberFormatException )`

**Parameters:**

*value* - string value to convert to short and wrap

**Exceptions:**

*NumberFormatException*

**6.620.1.3**   `virtual decaf::lang::Short::~~Short () [inline, virtual]`

## **6.620.2   Member Function Documentation**

**6.620.2.1**   `virtual unsigned char decaf::lang::Short::byteValue () const [inline, virtual]`

Answers the byte value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2432).

**6.620.2.2**   `virtual int decaf::lang::Short::compareTo (const short & s) const [virtual]`

Compares this **Short** (p. 2906) instance with another.

**Parameters:**

*s* - the **Short** (p. 2906) instance to be compared

**Returns:**

zero if this object represents the same short value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements `decaf::lang::Comparable< short >` (p. 1083).

**6.620.2.3**   `virtual int decaf::lang::Short::compareTo (const Short & s) const [virtual]`

Compares this **Short** (p. 2906) instance with another.

**Parameters:**

*s* - the **Short** (p. 2906) instance to be compared



**Returns:**

zero if this object represents the same short value as the argument; a positive value if this object represents a value greater than the passed in value, and -1 if this object represents a value less than the passed in value.

Implements **decaf::lang::Comparable**< **Short** > (p.1083).

**6.620.2.4 static Short decaf::lang::Short::decode (const std::string & value) throw ( exceptions::NumberFormatException ) [static]**

Decodes a String into a **Short** (p. 2906). Accepts decimal, hexadecimal, and octal numbers given by the following grammar:

The sequence of characters following an (optional) negative sign and/or radix specifier ("0x", "0X", "#", or leading zero) is parsed as by the **Short.parseShort** (p.2912) method with the indicated radix (10, 16, or 8). This sequence of characters must represent a positive value or a **NumberFormatException** will be thrown. The result is negated if first character of the specified String is the minus sign. No whitespace characters are permitted in the string.

**Parameters:**

*value* - The string to decode

**Returns:**

a **Short** (p.2906) object containing the decoded value

**Exceptions:**

*NumberFormatException* if the string is not formatted correctly.

**6.620.2.5 virtual double decaf::lang::Short::doubleValue () const [inline, virtual]**

Answers the double value which the receiver represents.

**Returns:**

double the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.620.2.6 bool decaf::lang::Short::equals (const short & s) const [inline, virtual]****Returns:**

true if the two **Short** (p. 2906) Objects have the same value.

Implements **decaf::lang::Comparable**< **short** > (p.1084).

**6.620.2.7 bool decaf::lang::Short::equals (const Short & s) const [inline, virtual]****Returns:**

true if the two **Short** (p. 2906) Objects have the same value.

Implements **decaf::lang::Comparable**< **Short** > (p.1084).

**6.620.2.8** `virtual float decaf::lang::Short::floatValue () const [inline, virtual]`

Answers the float value which the receiver represents.

**Returns:**

float the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.620.2.9** `virtual int decaf::lang::Short::intValue () const [inline, virtual]`

Answers the int value which the receiver represents.

**Returns:**

int the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.620.2.10** `virtual long long decaf::lang::Short::longValue () const [inline, virtual]`

Answers the long value which the receiver represents.

**Returns:**

long the value of the receiver.

Implements **decaf::lang::Number** (p. 2433).

**6.620.2.11** `virtual bool decaf::lang::Short::operator< (const short & s) const [inline, virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*s* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< short >** (p. 1084).

**6.620.2.12** `virtual bool decaf::lang::Short::operator< (const Short & s) const [inline, virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*s* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Short >** (p.1084).

**6.620.2.13** `virtual bool decaf::lang::Short::operator==(const short & s) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*s* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< short >** (p.1085).

**6.620.2.14** `virtual bool decaf::lang::Short::operator==(const Short & s) const`  
[inline, virtual]

Compares equality between this object and the one passed.

**Parameters:**

*s* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

Implements **decaf::lang::Comparable< Short >** (p.1085).

**6.620.2.15** `static short decaf::lang::Short::parseShort(const std::string & s) throw`  
( **exceptions::NumberFormatException** ) [static]

Parses the string argument as a signed decimal short. The characters in the string must all be decimal digits, except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting short value is returned, exactly as if the argument and the radix 10 were given as arguments to the `parseShort( const std::string, int )` method.

**Parameters:**

*s* - String to convert to a short

**Returns:**

the converted short value

**Exceptions:**

*NumberFormatException* if the string is not a short.

**6.620.2.16** `static short decaf::lang::Short::parseShort (const std::string & s, int radix) throw ( exceptions::NumberFormatException ) [static]`

Parses the string argument as a signed short in the radix specified by the second argument. The characters in the string must all be digits, of the specified radix (as determined by whether **Character.digit(char, int)** (p. 985) returns a nonnegative value) except that the first character may be an ASCII minus sign '-' to indicate a negative value. The resulting byte value is returned.

An exception of type `NumberFormatException` is thrown if any of the following situations occurs:

- \* The first argument is null or is a string of length zero.
- \* The radix is either smaller than **Character.MIN\_RADIX** (p. 989) or larger than **Character.MAX\_RADIX** (p. 989).
- \* Any character of the string is not a digit of the specified radix, except that the first character may be a minus sign '-' provided that the string is longer than length 1.
- \* The value represented by the string is not a value of type short.

**Parameters:**

*s* - the String containing the short representation to be parsed  
*radix* - the radix to be used while parsing s

**Returns:**

the short represented by the string argument in the specified radix.

**Exceptions:**

*NumberFormatException* - If String does not contain a parsable short.

**6.620.2.17** `static short decaf::lang::Short::reverseBytes (short value) [static]`

Returns the value obtained by reversing the order of the bytes in the two's complement representation of the specified short value.

**Parameters:**

*value* - the short whose bytes we are to reverse

**Returns:**

the reversed short.

**6.620.2.18** `virtual short decaf::lang::Short::shortValue () const [inline, virtual]`

Answers the short value which the receiver represents.

**Returns:**

int the value of the receiver.

Reimplemented from `decaf::lang::Number` (p. 2434).

**6.620.2.19** `static std::string decaf::lang::Short::toString (short value) [static]`

**Returns:**

a string representing the primitive value as Base 10

**6.620.2.20** `std::string decaf::lang::Short::toString () const`**Returns:**

this **Short** (p. 2906) Object as a String Representation

**6.620.2.21** `static Short decaf::lang::Short::valueOf (const std::string & value, int radix) throw ( exceptions::NumberFormatException ) [static]`

Returns a **Short** (p. 2906) object holding the value extracted from the specified `std::string` when parsed with the radix given by the second argument. The first argument is interpreted as representing a signed short in the radix specified by the second argument, exactly as if the argument were given to the `parseShort( std::string, int )` method. The result is a **Short** (p. 2906) object that represents the short value specified by the string.

**Parameters:**

*value* - `std::string` to parse as base ( radix )

*radix* - base of the string to parse.

**Returns:**

new **Short** (p. 2906) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a valid short.

**6.620.2.22** `static Short decaf::lang::Short::valueOf (const std::string & value) throw ( exceptions::NumberFormatException ) [static]`

Returns a **Short** (p. 2906) object holding the value given by the specified `std::string`. The argument is interpreted as representing a signed decimal short, exactly as if the argument were given to the `parseShort( std::string )` method. The result is a **Short** (p. 2906) object that represents the short value specified by the string.

**Parameters:**

*value* - `std::string` to parse as base 10

**Returns:**

new **Short** (p. 2906) Object wrapping the primitive

**Exceptions:**

*NumberFormatException* if the string is not a decimal short.

**6.620.2.23** `static Short decaf::lang::Short::valueOf (short value) [static]`

Returns a **Short** (p. 2906) instance representing the specified short value.

**Parameters:**

*value* - the short to wrap

**Returns:**

the new **Short** (p. 2906) object wrapping value.

**6.620.3 Field Documentation**

**6.620.3.1** `const short decaf::lang::Short::MAX_VALUE = (short)0x7FFF`  
[static]

Max Value for this Object's primitive type.

**6.620.3.2** `const short decaf::lang::Short::MIN_VALUE = (short)0x8000` [static]

Max Value for this Object's primitive type.

**6.620.3.3** `const int decaf::lang::Short::SIZE = 16` [static]

Size of this objects primitive type in bits.

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Short.h`

## 6.621 decaf::internal::nio::ShortArrayBuffer Class Reference

#include <src/main/decaf/internal/nio/ShortArrayBuffer.h> Inheritance diagram for decaf::internal::nio::ShortArrayBuffer:

### Public Member Functions

- **ShortArrayBuffer** (std::size\_t capacity, bool readOnly=false)  
*Creates a **ShortArrayBuffer** (p. 2915) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*
- **ShortArrayBuffer** (short \*array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::NullPointerException )  
*Creates a **ShortArrayBuffer** (p. 2915) object that wraps the given array.*
- **ShortArrayBuffer** (ByteArrayPerspective &array, std::size\_t offset, std::size\_t capacity, bool readOnly=false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset.*
- **ShortArrayBuffer** (const ShortArrayBuffer &other)  
*Create a **ShortArrayBuffer** (p. 2915) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.*
- virtual ~**ShortArrayBuffer** ()
- virtual short \* **array** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the short array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual ShortBuffer \* **asReadOnlyBuffer** () const  
*Creates a new, read-only short buffer that shares this buffer's content.*
- virtual ShortBuffer & **compact** () throw ( decaf::nio::ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual ShortBuffer \* **duplicate** ()  
*Creates a new short buffer that shares this buffer's content.*
- virtual short **get** () throw ( decaf::nio::BufferUnderflowException )  
*Relative get method.*
- virtual short **get** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Absolute get method.*

- virtual bool **hasArray** () const

*Tells whether or not this buffer is backed by an accessible short array.*

- virtual bool **isReadOnly** () const

*Tells whether or not this buffer is read-only.*

- virtual ShortBuffer & **put** (short value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )

*Writes the given doubles into this buffer at the current position, and then increments the position.*

- virtual ShortBuffer & **put** (std::size\_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException )

*Writes the given doubles into this buffer at the given index.*

- virtual ShortBuffer \* **slice** () const

*Creates a new ShortBuffer whose content is a shared subsequence of this buffer's content.*

## Protected Member Functions

- virtual void **setReadOnly** (bool value)

*Sets this **ByteArrayBuffer** (p. 870) as Read-Only.*

## 6.621.1 Constructor & Destructor Documentation

### 6.621.1.1 decaf::internal::nio::ShortArrayBuffer::ShortArrayBuffer (std::size\_t capacity, bool readOnly = false)

Creates a **ShortArrayBuffer** (p. 2915) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

#### Parameters:

**capacity** - size of the array, this is the limit we read and write to.

**readOnly** - should this buffer be read-only, default as false

### 6.621.1.2 decaf::internal::nio::ShortArrayBuffer::ShortArrayBuffer (short \* array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::NullPointerException )

Creates a **ShortArrayBuffer** (p. 2915) object that wraps the given array. If the own flag is set then it will delete this array when this object is deleted.

#### Parameters:

**array** - array to wrap



*offset* - the position that is this buffers start pos.

*capacity* - size of the array, this is the limit we read and write to.

*readOnly* - should this buffer be read-only, default as false

#### Exceptions:

*NullPointerException* if buffer is NULL

#### 6.621.1.3 decaf::internal::nio::ShortArrayBuffer::ShortArrayBuffer (ByteArrayPerspective & array, std::size\_t offset, std::size\_t capacity, bool readOnly = false) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

Creates a byte buffer that wraps the passed **ByteArrayPerspective** (p. 908) and start at the given offset. The capacity and limit of the new **ShortArrayBuffer** (p. 2915) will be that of the remaining capacity of the passed buffer.

#### Parameters:

*array* - the **ByteArrayPerspective** (p. 908) to wrap

*offset* - the position that is this buffers start pos.

*capacity* - the length of the array we are wrapping or limit.

*readOnly* - is this a readOnly buffer.

#### Exceptions:

*IndexOutOfBoundsException* if offset is greater than array capacity.

#### 6.621.1.4 decaf::internal::nio::ShortArrayBuffer::ShortArrayBuffer (const ShortArrayBuffer & other)

Create a **ShortArrayBuffer** (p. 2915) that mirrors this one, meaning it shares a reference to this buffers **ByteArrayPerspective** (p. 908) and when changes are made to that data it is reflected in both.

#### Parameters:

*other* - the **ShortArrayBuffer** (p. 2915) this one is to mirror.

#### 6.621.1.5 virtual decaf::internal::nio::ShortArrayBuffer::~~ShortArrayBuffer () [virtual]

### 6.621.2 Member Function Documentation

#### 6.621.2.1 virtual short\* decaf::internal::nio::ShortArrayBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::nio::ReadOnlyBufferException ) [virtual]

Returns the short array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this Buffer

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::ShortBuffer** (p. 2926).

**6.621.2.2** `virtual std::size_t decaf::internal::nio::ShortArrayBuffer::arrayOffset  
( ) throw ( decaf::lang::exceptions::UnsupportedOperationException,  
decaf::nio::ReadOnlyBufferException ) [virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* if this Buffer is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implements **decaf::nio::ShortBuffer** (p. 2926).

**6.621.2.3** `virtual ShortBuffer* de-  
caf::internal::nio::ShortArrayBuffer::asReadOnlyBuffer ( )  
const [virtual]`

Creates a new, read-only short buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only short buffer which the caller then owns.

Implements **decaf::nio::ShortBuffer** (p. 2926).

**6.621.2.4** `virtual ShortBuffer& decaf::internal::nio::ShortArrayBuffer::compact ( )  
throw ( decaf::nio::ReadOnlyBufferException ) [virtual]`

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index `p = position()` (p. 807) is copied

to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index `limit()` (p. 807) - 1 is copied to index  $n = \text{limit}() - 1 - p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this ShortBuffer

**Exceptions:**

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ShortBuffer** (p. 2927).

**6.621.2.5 virtual ShortBuffer\* decaf::internal::nio::ShortArrayBuffer::duplicate ()**  
[virtual]

Creates a new short buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new short Buffer which the caller owns.

Implements **decaf::nio::ShortBuffer** (p. 2927).

**6.621.2.6 virtual short decaf::internal::nio::ShortArrayBuffer::get (std::size\_t index) const throw ( lang::exceptions::IndexOutOfBoundsException )**  
[virtual]

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the Buffer where the short is to be read

**Returns:**

the short that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implements **decaf::nio::ShortBuffer** (p. 2929).

**6.621.2.7** `virtual short decaf::internal::nio::ShortArrayBuffer::get () throw ( decaf::nio::BufferUnderflowException ) [virtual]`

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the short at the current position

**Exceptions:**

*BufferUnderflowException* if there no more data to return

Implements `decaf::nio::ShortBuffer` (p. 2929).

**6.621.2.8** `virtual bool decaf::internal::nio::ShortArrayBuffer::hasArray () const [inline, virtual]`

Tells whether or not this buffer is backed by an accessible short array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implements `decaf::nio::ShortBuffer` (p. 2929).

**6.621.2.9** `virtual bool decaf::internal::nio::ShortArrayBuffer::isReadOnly () const [inline, virtual]`

Tells whether or not this buffer is read-only.

**Returns:**

true if, and only if, this buffer is read-only

Implements `decaf::nio::Buffer` (p. 806).

**6.621.2.10** `virtual ShortBuffer& decaf::internal::nio::ShortArrayBuffer::put (std::size_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException, decaf::nio::ReadOnlyBufferException ) [virtual]`

Writes the given doubles into this buffer at the given index.

**Parameters:**

*index* - position in the Buffer to write the data

*value* - the doubles to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ShortBuffer** (p. 2930).

**6.621.2.11** `virtual ShortBuffer& decaf::internal::nio::ShortArrayBuffer::put (short value) throw ( decaf::nio::BufferOverflowException, decaf::nio::ReadOnlyBufferException )` [virtual]

Writes the given doubles into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the doubles value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* - If this buffer is read-only

Implements **decaf::nio::ShortBuffer** (p. 2930).

**6.621.2.12** `virtual void decaf::internal::nio::ShortArrayBuffer::setReadOnly (bool value)` [inline, protected, virtual]

Sets this **ByteBuffer** (p. 870) as Read-Only.

**Parameters:**

*value* - true if this buffer is to be read-only.

**6.621.2.13** `virtual ShortBuffer* decaf::internal::nio::ShortArrayBuffer::slice () const` [virtual]

Creates a new **ShortBuffer** whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **ShortBuffer** which the caller owns.

Implements **decaf::nio::ShortBuffer** (p. 2932).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/nio/ShortArrayBuffer.h`

## 6.622 decaf::nio::ShortBuffer Class Reference

This class defines four categories of operations upon short buffers:.

#include <src/main/decaf/nio/ShortBuffer.h> Inheritance diagram for decaf::nio::ShortBuffer:

### Public Member Functions

- virtual **~ShortBuffer** ()
- virtual std::string **toString** () const
- virtual short \* **array** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the short array that backs this buffer (optional operation).*
- virtual std::size\_t **arrayOffset** ()=0 throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException )  
*Returns the offset within this buffer's backing array of the first element of the buffer (optional operation).*
- virtual **ShortBuffer** \* **asReadOnlyBuffer** () const =0  
*Creates a new, read-only short buffer that shares this buffer's content.*
- virtual **ShortBuffer** & **compact** ()=0 throw ( ReadOnlyBufferException )  
*Compacts this buffer.*
- virtual **ShortBuffer** \* **duplicate** ()=0  
*Creates a new short buffer that shares this buffer's content.*
- virtual short **get** ()=0 throw ( BufferUnderflowException )  
*Relative get method.*
- virtual short **get** (std::size\_t index) const =0 throw ( lang::exceptions::IndexOutOfBoundsException )  
*Absolute get method.*
- **ShortBuffer** & **get** (std::vector< short > buffer) throw ( BufferUnderflowException )  
*Relative bulk get method.*
- **ShortBuffer** & **get** (short \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferUnderflowException, lang::exceptions::NullPointerException )  
*Relative bulk get method.*
- virtual bool **hasArray** () const =0  
*Tells whether or not this buffer is backed by an accessible short array.*
- **ShortBuffer** & **put** (**ShortBuffer** &src) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::IllegalArgumentException )  
*This method transfers the shorts remaining in the given source buffer into this buffer.*

- **ShortBuffer & put** (const short \*buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )

*This method transfers shorts into this buffer from the given source array.*

- **ShortBuffer & put** (std::vector< short > &buffer) throw ( BufferOverflowException, ReadOnlyBufferException )

*This method transfers the entire content of the given source shorts array into this buffer.*

- virtual **ShortBuffer & put** (short value)=0 throw ( BufferOverflowException, ReadOnlyBufferException )

*Writes the given shorts into this buffer at the current position, and then increments the position.*

- virtual **ShortBuffer & put** (std::size\_t index, short value)=0 throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )

*Writes the given shorts into this buffer at the given index.*

- virtual **ShortBuffer \* slice** () const =0

*Creates a new **ShortBuffer** (p. 2923) whose content is a shared subsequence of this buffer's content.*

- virtual int **compareTo** (const **ShortBuffer** &value) const

*Compares this object with the specified object for order.*

- virtual bool **equals** (const **ShortBuffer** &value) const

- virtual bool **operator==** (const **ShortBuffer** &value) const

*Compares equality between this object and the one passed.*

- virtual bool **operator<** (const **ShortBuffer** &value) const

*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static **ShortBuffer \* allocate** (std::size\_t capacity)

*Allocates a new Double buffer.*

- static **ShortBuffer \* wrap** (short \*array, std::size\_t offset, std::size\_t length) throw ( lang::exceptions::NullPointerException )

*Wraps the passed buffer with a new **ShortBuffer** (p. 2923).*

- static **ShortBuffer \* wrap** (std::vector< short > &buffer)

*Wraps the passed STL short Vector in a **ShortBuffer** (p. 2923).*



## Protected Member Functions

- **ShortBuffer** (std::size\_t capacity)

*Creates a **ShortBuffer** (p. 2923) object that has its backing array allocated internally and is then owned and deleted when this object is deleted.*

### 6.622.1 Detailed Description

This class defines four categories of operations upon short buffers:.

- o Absolute and relative get and put methods that read and write single shorts;
- o Relative bulk get methods that transfer contiguous sequences of shorts from this buffer into an array; and
- o Relative bulk put methods that transfer contiguous sequences of shorts from a short array or some other short buffer into this buffer
- o Methods for compacting, duplicating, and slicing a short buffer.

Double buffers can be created either by allocation, which allocates space for the buffer's content, by wrapping an existing short array into a buffer, or by creating a view of an existing byte buffer

Methods in this class that do not otherwise have a value to return are specified to return the buffer upon which they are invoked. This allows method invocations to be chained.

### 6.622.2 Constructor & Destructor Documentation

#### 6.622.2.1 decaf::nio::ShortBuffer::ShortBuffer (std::size\_t capacity) [protected]

Creates a **ShortBuffer** (p. 2923) object that has its backing array allocated internally and is then owned and deleted when this object is deleted. The array is initially created with all elements initialized to zero.

##### Parameters:

*capacity* - size and limit of the **Buffer** (p. 803) in doubles

#### 6.622.2.2 virtual decaf::nio::ShortBuffer::~~ShortBuffer () [inline, virtual]

### 6.622.3 Member Function Documentation

#### 6.622.3.1 static ShortBuffer\* decaf::nio::ShortBuffer::allocate (std::size\_t capacity) [static]

Allocates a new Double buffer. The new buffer's position will be zero, its limit will be its capacity, and its mark will be undefined. It will have a backing array, and its array offset will be zero.

##### Parameters:

*capacity* - The size of the Double buffer in shorts

##### Returns:

the **ShortBuffer** (p. 2923) that was allocated, caller owns.

**6.622.3.2** `virtual short* decaf::nio::ShortBuffer::array () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the short array that backs this buffer (optional operation). Modifications to this buffer's content will cause the returned array's content to be modified, and vice versa.

Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

the array that backs this **Buffer** (p. 803)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in `decaf::internal::nio::ShortArrayBuffer` (p. 2917).

**6.622.3.3** `virtual std::size_t decaf::nio::ShortBuffer::arrayOffset () throw ( decaf::lang::exceptions::UnsupportedOperationException, ReadOnlyBufferException ) [pure virtual]`

Returns the offset within this buffer's backing array of the first element of the buffer (optional operation). Invoke the `hasArray` method before invoking this method in order to ensure that this buffer has an accessible backing array.

**Returns:**

The offset into the backing array where index zero starts.

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) if this **Buffer** (p. 803) is read only.

*UnsupportedOperationException* if the underlying store has no array.

Implemented in `decaf::internal::nio::ShortArrayBuffer` (p. 2918).

**6.622.3.4** `virtual ShortBuffer* decaf::nio::ShortBuffer::asReadOnlyBuffer () const [pure virtual]`

Creates a new, read-only short buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer; the new buffer itself, however, will be read-only and will not allow the shared content to be modified. The two buffers' position, limit, and mark values will be independent.

If this buffer is itself read-only then this method behaves in exactly the same way as the `duplicate` method.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer.

**Returns:**

The new, read-only short buffer which the caller then owns.

Implemented in `decaf::internal::nio::ShortArrayBuffer` (p. 2918).

**6.622.3.5 virtual ShortBuffer& decaf::nio::ShortBuffer::compact () throw (ReadOnlyBufferException) [pure virtual]**

Compacts this buffer. The bytes between the buffer's current position and its limit, if any, are copied to the beginning of the buffer. That is, the byte at index  $p = \text{position}()$  (p. 807) is copied to index zero, the byte at index  $p + 1$  is copied to index one, and so forth until the byte at index  $\text{limit}()$  (p. 807) - 1 is copied to index  $n = \text{limit}()$  (p. 807) - 1 -  $p$ . The buffer's position is then set to  $n+1$  and its limit is set to its capacity. The mark, if defined, is discarded.

The buffer's position is set to the number of bytes copied, rather than to zero, so that an invocation of this method can be followed immediately by an invocation of another relative put method.

**Returns:**

a reference to this **ShortBuffer** (p. 2923)

**Exceptions:**

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2918).

**6.622.3.6 virtual int decaf::nio::ShortBuffer::compareTo (const ShortBuffer & value) const [virtual]**

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.622.3.7 virtual ShortBuffer\* decaf::nio::ShortBuffer::duplicate () [pure virtual]**

Creates a new short buffer that shares this buffer's content. The content of the new buffer will be that of this buffer. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's capacity, limit, position, and mark values will be identical to those of this buffer. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

a new short **Buffer** (p. 803) which the caller owns.

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2919).

**6.622.3.8** virtual bool decaf::nio::ShortBuffer::equals (const ShortBuffer & *value*)  
const [virtual]

**Returns:**

true if this value is considered equal to the passed value.

**6.622.3.9** ShortBuffer& decaf::nio::ShortBuffer::get (short \* *buffer*, std::size\_t  
*offset*, std::size\_t *length*) throw ( BufferUnderflowException,  
lang::exceptions::NullPointerException )

Relative bulk get method. This method transfers shorts from this buffer into the given destination array. If there are fewer shorts remaining in the buffer than are required to satisfy the request, that is, if *length* > **remaining()** (p. 808), then no bytes are transferred and a **BufferUnderflowException** (p. 837) is thrown.

Otherwise, this method copies *length* shorts from this buffer into the given array, starting at the current position of this buffer and at the given *offset* in the array. The position of this buffer is then incremented by *length*.

**Parameters:**

*buffer* - pointer to an allocated buffer to fill

*offset* - position in the buffer to start filling

*length* - amount of data to put in the passed buffer

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

**BufferUnderflowException** (p. 837) - If there are fewer than *length* shorts remaining in this buffer

**NullPointerException** if the passed buffer is null.

**6.622.3.10** ShortBuffer& decaf::nio::ShortBuffer::get (std::vector< short > *buffer*)  
throw ( BufferUnderflowException )

Relative bulk get method. This method transfers values from this buffer into the given destination vector. An invocation of this method of the form *src.get(a)* behaves in exactly the same way as the invocation. The vector must be sized to the amount of data that is to be read, that is to say, the caller should call *buffer.resize( N )* before calling this get method.

**Returns:**

a reference to this **Buffer** (p. 803)

**Exceptions:**

**BufferUnderflowException** (p. 837) - If there are fewer than *length* shorts remaining in this buffer

**6.622.3.11** `virtual short decaf::nio::ShortBuffer::get (std::size_t index) const throw (lang::exceptions::IndexOutOfBoundsException) [pure virtual]`

Absolute get method. Reads the value at the given index.

**Parameters:**

*index* - the index in the **Buffer** (p. 803) where the short is to be read

**Returns:**

the short that is located at the given index

**Exceptions:**

*IndexOutOfBoundsException* - If index is not smaller than the buffer's limit

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2919).

**6.622.3.12** `virtual short decaf::nio::ShortBuffer::get () throw (BufferUnderflowException) [pure virtual]`

Relative get method. Reads the value at this buffer's current position, and then increments the position.

**Returns:**

the short at the current position

**Exceptions:**

*BufferUnderflowException* (p. 837) if there no more data to return

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2920).

**6.622.3.13** `virtual bool decaf::nio::ShortBuffer::hasArray () const [pure virtual]`

Tells whether or not this buffer is backed by an accessible short array. If this method returns true then the array and arrayOffset methods may safely be invoked. Subclasses should override this method if they do not have a backing array as this class always returns true.

**Returns:**

true if, and only if, this buffer is backed by an array and is not read-only

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2920).

**6.622.3.14** `virtual bool decaf::nio::ShortBuffer::operator< (const ShortBuffer & value) const [virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.622.3.15**    **virtual bool decaf::nio::ShortBuffer::operator==(const ShortBuffer & value) const**    [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.622.3.16**    **virtual ShortBuffer& decaf::nio::ShortBuffer::put (std::size\_t index, short value) throw ( lang::exceptions::IndexOutOfBoundsException, ReadOnlyBufferException )**    [pure virtual]

Writes the given shorts into this buffer at the given index.

**Parameters:**

*index* - position in the **Buffer** (p. 803) to write the data

*value* - the shorts to write.

**Returns:**

a reference to this buffer

**Exceptions:**

*IndexOutOfBoundsException* - If index greater than the buffer's limit minus the size of the type being written.

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2920).

**6.622.3.17**    **virtual ShortBuffer& decaf::nio::ShortBuffer::put (short value) throw ( BufferOverflowException, ReadOnlyBufferException )**    [pure virtual]

Writes the given shorts into this buffer at the current position, and then increments the position.

**Parameters:**

*value* - the shorts value to be written

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If this buffer's current position is not smaller than its limit

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2921).

**6.622.3.18 ShortBuffer& decaf::nio::ShortBuffer::put (std::vector< short > & buffer) throw ( BufferOverflowException, ReadOnlyBufferException )**

This method transfers the entire content of the given source shorts array into this buffer. This is the same as calling put( &buffer[0], 0, buffer.size())

**Parameters:**

*buffer* - The buffer whose contents are copied to this **ShortBuffer** (p. 2923)

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

**6.622.3.19 ShortBuffer& decaf::nio::ShortBuffer::put (const short \* buffer, std::size\_t offset, std::size\_t length) throw ( BufferOverflowException, ReadOnlyBufferException, lang::exceptions::NullPointerException )**

This method transfers shorts into this buffer from the given source array. If there are more shorts to be copied from the array than remain in this buffer, that is, if length > **remaining()** (p. 808), then no shorts are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies length bytes from the given array into this buffer, starting at the given offset in the array and at the current position of this buffer. The position of this buffer is then incremented by length.

**Parameters:**

*buffer*- The array from which shorts are to be read

*offset*- The offset within the array of the first short to be read;

*length* - The number of shorts to be read from the given array

**Returns:**

a reference to this buffer

**Exceptions:**

*BufferOverflowException* (p. 834) - If there is insufficient space in this buffer

*ReadOnlyBufferException* (p. 2685) - If this buffer is read-only

*NullPointerException* if the passed buffer is null.

**6.622.3.20** `ShortBuffer& decaf::nio::ShortBuffer::put (ShortBuffer & src)  
throw ( BufferOverflowException, ReadOnlyBufferException,  
lang::exceptions::IllegalArgumentException )`

This method transfers the shorts remaining in the given source buffer into this buffer. If there are more shorts remaining in the source buffer than in this buffer, that is, if `src.remaining() > remaining()` (p. 808), then no shorts are transferred and a **BufferOverflowException** (p. 834) is thrown.

Otherwise, this method copies `n = src.remaining()` shorts from the given buffer into this buffer, starting at each buffer's current position. The positions of both buffers are then incremented by `n`.

**Parameters:**

*src* - the buffer to take shorts from an place in this one.

**Returns:**

a reference to this buffer

**Exceptions:**

**BufferOverflowException** (p. 834) - If there is insufficient space in this buffer for the remaining shorts in the source buffer

**IllegalArgumentException** - If the source buffer is this buffer

**ReadOnlyBufferException** (p. 2685) - If this buffer is read-only

**6.622.3.21** `virtual ShortBuffer* decaf::nio::ShortBuffer::slice () const [pure  
virtual]`

Creates a new **ShortBuffer** (p. 2923) whose content is a shared subsequence of this buffer's content. The content of the new buffer will start at this buffer's current position. Changes to this buffer's content will be visible in the new buffer, and vice versa; the two buffers' position, limit, and mark values will be independent.

The new buffer's position will be zero, its capacity and its limit will be the number of bytes remaining in this buffer, and its mark will be undefined. The new buffer will be read-only if, and only if, this buffer is read-only.

**Returns:**

the newly create **ShortBuffer** (p. 2923) which the caller owns.

Implemented in **decaf::internal::nio::ShortArrayBuffer** (p. 2921).

**6.622.3.22** `virtual std::string decaf::nio::ShortBuffer::toString () const [virtual]`

**Returns:**

a `std::string` describing this object



**6.622.3.23**    `static ShortBuffer* decaf::nio::ShortBuffer::wrap (std::vector< short > & buffer)` [static]

Wraps the passed STL short Vector in a **ShortBuffer** (p.2923). The new buffer will be backed by the given short array; modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity and limit will be `buffer.size()`, its position will be zero, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*buffer* - The vector that will back the new buffer, the vector must have been sized to the desired size already by calling `vector.resize( N )`.

**Returns:**

a new **ShortBuffer** (p.2923) that is backed by *buffer*, caller owns.

**6.622.3.24**    `static ShortBuffer* decaf::nio::ShortBuffer::wrap (short * array, std::size_t offset, std::size_t length) throw ( lang::exceptions::NullPointerException )` [static]

Wraps the passed buffer with a new **ShortBuffer** (p.2923). The new buffer will be backed by the given short array; that is, modifications to the buffer will cause the array to be modified and vice versa. The new buffer's capacity will be `array.length`, its position will be `offset`, its limit will be `offset + length`, and its mark will be undefined. Its backing array will be the given array, and its array offset will be zero.

**Parameters:**

*array* - The array that will back the new buffer

*offset* - The offset of the subarray to be used

*length* - The length of the subarray to be used

**Returns:**

a new **ShortBuffer** (p.2923) that is backed by *buffer*, caller owns.

The documentation for this class was generated from the following file:

- `src/main/decaf/nio/ShortBuffer.h`

## 6.623 activemq::commands::ShutdownInfo Class Reference

#include <src/main/activemq/commands/ShutdownInfo.h> Inheritance diagram for activemq::commands::ShutdownInfo:

### Public Member Functions

- **ShutdownInfo** ()
- virtual **~ShutdownInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **ShutdownInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isShutdownInfo** () const
- virtual **Pointer< Command > visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID \_SHUTDOWNINFO** = 11

### Protected Member Functions

- **ShutdownInfo** (const **ShutdownInfo** &)
- **ShutdownInfo** & **operator=** (const **ShutdownInfo** &)

## 6.623.1 Constructor & Destructor Documentation

**6.623.1.1** `activemq::commands::ShutdownInfo::ShutdownInfo (const ShutdownInfo &) [inline, protected]`

**6.623.1.2** `activemq::commands::ShutdownInfo::ShutdownInfo ()`

**6.623.1.3** `virtual activemq::commands::ShutdownInfo::~~ShutdownInfo () [virtual]`

## 6.623.2 Member Function Documentation

**6.623.2.1** `virtual ShutdownInfo* activemq::commands::ShutdownInfo::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.623.2.2** `virtual void activemq::commands::ShutdownInfo::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.623.2.3** `virtual bool activemq::commands::ShutdownInfo::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.623.2.4** `virtual unsigned char activemq::commands::ShutdownInfo::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.623.2.5** **virtual bool activemq::commands::ShutdownInfo::isShutdownInfo ()**  
**const** [inline, virtual]

**Returns:**

an answer of true to the **isShutdownInfo()** (p. 2936) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.623.2.6** **ShutdownInfo& activemq::commands::ShutdownInfo::operator= (const**  
**ShutdownInfo &)** [inline, protected]

**6.623.2.7** **virtual std::string activemq::commands::ShutdownInfo::toString () const**  
**[virtual]**

Returns a string containing the information for this **DataSet** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.623.2.8** **virtual Pointer<Command> activemq::commands::ShutdownInfo::visit**  
**(activemq::state::CommandVisitor \* visitor) throw (**  
**exceptions::ActiveMQException )** [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p. 1067).

**6.623.3 Field Documentation**

**6.623.3.1** **const unsigned char activemq::commands::ShutdownInfo::ID\_ -**  
**SHUTDOWNINFO = 11** [static]

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**ShutdownInfo.h**

## 6.624 activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2937).

#include <src/main/activemq/wireformat/openwire/marshal/v1/ShutdownInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller:

### Public Member Functions

- **ShutdownInfoMarshaller** ()
- virtual **~ShutdownInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.624.1 Detailed Description

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2937). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.624.2 Constructor & Destructor Documentation

**6.624.2.1** `activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::ShutdownInfoMarshaller()` [inline]

**6.624.2.2** `virtual activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::~~ShutdownInfoMarshaller()` [inline, virtual]

## 6.624.3 Member Function Documentation

**6.624.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.624.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.624.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.624.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.624.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.624.3.6** virtual void activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.624.3.7** virtual void activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**ShutdownInfoMarshaller.h**



## 6.625 activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2941).

#include <src/main/activemq/wireformat/openwire/marshal/v4/ShutdownInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller:

### Public Member Functions

- **ShutdownInfoMarshaller** ()
- virtual **~ShutdownInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.625.1 Detailed Description

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2941). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.625.2 Constructor & Destructor Documentation

**6.625.2.1** `activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::ShutdownInfoMarshaller()` [inline]

**6.625.2.2** `virtual activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::~~ShutdownInfoMarshaller()` [inline, virtual]

## 6.625.3 Member Function Documentation

**6.625.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.625.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.625.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 672).

**6.625.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 673).

**6.625.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller` (p. 674).

**6.625.3.6** virtual void activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.625.3.7** virtual void activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**ShutdownInfoMarshaller.h**

## 6.626 activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2945).

#include <src/main/activemq/wireformat/openwire/marshal/v3/ShutdownInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller:

### Public Member Functions

- **ShutdownInfoMarshaller** ()
- virtual **~ShutdownInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.626.1 Detailed Description

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2945). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.626.2 Constructor & Destructor Documentation

**6.626.2.1** `activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::ShutdownInfoMarshaller()` [inline]

**6.626.2.2** `virtual activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::~~ShutdownInfoMarshaller()` [inline, virtual]

## 6.626.3 Member Function Documentation

**6.626.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.626.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.626.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.626.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.626.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.626.3.6** virtual void activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 661).

**6.626.3.7** virtual void activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller` (p. 662).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/ShutdownInfoMarshaller.h`



## 6.627 activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2949).

#include <src/main/activemq/wireformat/openwire/marshal/v2/ShutdownInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller:

### Public Member Functions

- **ShutdownInfoMarshaller** ()
- virtual **~ShutdownInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.627.1 Detailed Description

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2949). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.627.2 Constructor & Destructor Documentation

**6.627.2.1** `activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::ShutdownInfoMarshaller()` [inline]

**6.627.2.2** `virtual activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::~~ShutdownInfoMarshaller()` [inline, virtual]

## 6.627.3 Member Function Documentation

**6.627.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.627.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.627.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.627.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.627.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.627.3.6** virtual void activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.627.3.7** virtual void activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**ShutdownInfoMarshaller.h**

## 6.628 activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2953).

#include <src/main/activemq/wireformat/openwire/marshal/v5/ShutdownInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller:

### Public Member Functions

- **ShutdownInfoMarshaller** ()
- virtual **~ShutdownInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.628.1 Detailed Description

Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2953). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.628.2 Constructor & Destructor Documentation

**6.628.2.1** `activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::ShutdownInfoMarshaller()` [inline]

**6.628.2.2** `virtual activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::~~ShutdownInfoMarshaller()` [inline, virtual]

## 6.628.3 Member Function Documentation

**6.628.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.628.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.628.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 679).

**6.628.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 680).

**6.628.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 681).

**6.628.3.6** virtual void activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 682).

**6.628.3.7** virtual void activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller` (p. 683).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/ShutdownInfoMarshaller.h`



## 6.629 decaf::security::SignatureException Class Reference

#include <src/main/decaf/security/SignatureException.h> Inheritance diagram for decaf::security::SignatureException:

### Public Member Functions

- **SignatureException** () throw ()  
*Default Constructor.*
- **SignatureException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **SignatureException** (const **SignatureException** &ex) throw ()  
*Copy Constructor.*
- **SignatureException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **SignatureException** (const std::exception \*cause) throw ()  
*Constructor.*
- **SignatureException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **SignatureException** \* clone () const  
*Clones this exception.*
- virtual ~**SignatureException** () throw ()

### 6.629.1 Constructor & Destructor Documentation

#### 6.629.1.1 decaf::security::SignatureException::SignatureException () throw () [inline]

Default Constructor.

#### 6.629.1.2 decaf::security::SignatureException::SignatureException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.629.1.3 decaf::security::SignatureException::SignatureException (const SignatureException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

### 6.629.1.4 decaf::security::SignatureException::SignatureException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.629.1.5 decaf::security::SignatureException::SignatureException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.629.1.6 decaf::security::SignatureException::SignatureException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* name where exception occurs

*lineNumber* line number where the exception occurred.

*msg* message to report

... list of primitives that are formatted into the message

**6.629.1.7** virtual decaf::security::SignatureException::~~SignatureException ()  
throw () [inline, virtual]

## 6.629.2 Member Function Documentation

**6.629.2.1** virtual SignatureException\* decaf::security::SignatureException::clone ()  
const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

A deep copy of this exception.

Reimplemented from **decaf::security::GeneralSecurityException** (p. 1708).

The documentation for this class was generated from the following file:

- src/main/decaf/security/**SignatureException.h**

## 6.630 decaf::util::logging::SimpleFormatter Class Reference

Print a brief summary of the **LogRecord** (p. 2050) in a human readable format.

#include <src/main/decaf/util/logging/SimpleFormatter.h> Inheritance diagram for decaf::util::logging::SimpleFormatter:

### Public Member Functions

- **SimpleFormatter** ()
- virtual **~SimpleFormatter** ()
- virtual std::string **format** (const **LogRecord** &record) const  
*Format the given log record and return the formatted string.*
- virtual std::string **formatMessage** (const **LogRecord** &record) const  
*Format the message string from a log record.*
- virtual std::string **getHead** (const **Handler** \*handler)  
*Return the header string for a set of formatted records.*
- virtual std::string **getTail** (const **Handler** \*handler)  
*Return the tail string for a set of formatted records.*

### 6.630.1 Detailed Description

Print a brief summary of the **LogRecord** (p. 2050) in a human readable format. The summary will typically be 1 or 2 lines.

### 6.630.2 Constructor & Destructor Documentation

**6.630.2.1** decaf::util::logging::SimpleFormatter::SimpleFormatter () [inline]

**6.630.2.2** virtual decaf::util::logging::SimpleFormatter::~~SimpleFormatter ()  
[inline, virtual]

### 6.630.3 Member Function Documentation

**6.630.3.1** virtual std::string decaf::util::logging::SimpleFormatter::format (const **LogRecord** & *record*) const [inline, virtual]

Format the given log record and return the formatted string.

#### Parameters:

*record* The Log Record to Format

Implements **decaf::util::logging::Formatter** (p. 1699).

**6.630.3.2 virtual std::string decaf::util::logging::SimpleFormatter::formatMessage (const LogRecord & *record*) const** [inline, virtual]

Format the message string from a log record.

**Parameters:**

*record* The Log Record to Format

Implements **decaf::util::logging::Formatter** (p. 1700).

References **decaf::util::logging::LogRecord::getMessage()**.

**6.630.3.3 virtual std::string decaf::util::logging::SimpleFormatter::getHead (const Handler \* *handler*)** [inline, virtual]

Return the header string for a set of formatted records. In the default implementation this method should return empty string

**Parameters:**

*handler* the target handler, can be null

**Returns:**

empty string

Implements **decaf::util::logging::Formatter** (p. 1700).

**6.630.3.4 virtual std::string decaf::util::logging::SimpleFormatter::getTail (const Handler \* *handler*)** [inline, virtual]

Return the tail string for a set of formatted records. In the default implementation this method should return empty string

**Parameters:**

*handler* the target handler, can be null

**Returns:**

empty string

Implements **decaf::util::logging::Formatter** (p. 1700).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/logging/SimpleFormatter.h`

## 6.631 decaf::util::logging::SimpleLogger Class Reference

```
#include <src/main/decaf/util/logging/SimpleLogger.h>
```

### Public Member Functions

- **SimpleLogger** (const std::string &name)  
*Constructor.*
- virtual ~**SimpleLogger** ()  
*Destructor.*
- virtual void **mark** (const std::string &message)  
*Log a Mark Block Level Log.*
- virtual void **debug** (const std::string &file, const int line, const std::string &message)  
*Log a Debug Level Log.*
- virtual void **info** (const std::string &file, const int line, const std::string &message)  
*Log a Informational Level Log.*
- virtual void **warn** (const std::string &file, const int line, const std::string &message)  
*Log a Warning Level Log.*
- virtual void **error** (const std::string &file, const int line, const std::string &message)  
*Log a Error Level Log.*
- virtual void **fatal** (const std::string &file, const int line, const std::string &message)  
*Log a Fatal Level Log.*
- virtual void **log** (const std::string &message)  
*No-frills log.*

### 6.631.1 Constructor & Destructor Documentation

#### 6.631.1.1 decaf::util::logging::SimpleLogger::SimpleLogger (const std::string &name)

Constructor.

#### 6.631.1.2 virtual decaf::util::logging::SimpleLogger::~~SimpleLogger () [virtual]

Destructor.

## 6.631.2 Member Function Documentation

**6.631.2.1** virtual void decaf::util::logging::SimpleLogger::debug (const std::string & *file*, const int *line*, const std::string & *message*) [virtual]

Log a Debug Level Log.

**6.631.2.2** virtual void decaf::util::logging::SimpleLogger::error (const std::string & *file*, const int *line*, const std::string & *message*) [virtual]

Log a Error Level Log.

**6.631.2.3** virtual void decaf::util::logging::SimpleLogger::fatal (const std::string & *file*, const int *line*, const std::string & *message*) [virtual]

Log a Fatal Level Log.

**6.631.2.4** virtual void decaf::util::logging::SimpleLogger::info (const std::string & *file*, const int *line*, const std::string & *message*) [virtual]

Log a Informational Level Log.

**6.631.2.5** virtual void decaf::util::logging::SimpleLogger::log (const std::string & *message*) [virtual]

No-frills log.

**6.631.2.6** virtual void decaf::util::logging::SimpleLogger::mark (const std::string & *message*) [virtual]

Log a Mark Block Level Log.

**6.631.2.7** virtual void decaf::util::logging::SimpleLogger::warn (const std::string & *file*, const int *line*, const std::string & *message*) [virtual]

Log a Warning Level Log.

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**SimpleLogger.h**

## 6.632 decaf::net::Socket Class Reference

#include <src/main/decaf/net/Socket.h> Inheritance diagram for decaf::net::Socket:

### Public Types

- typedef apr\_socket\_t \* **SocketHandle**  
*Define the SocketHandle type.*
- typedef apr\_sockaddr\_t \* **SocketAddress**  
*Define the SocketAddress type.*

### Public Member Functions

- virtual ~**Socket** ()
- virtual void **connect** (const char \*host, int port)=0 throw (SocketException)  
*Connects to the specified destination.*
- virtual bool **isConnected** () const =0  
*Indicates whether or not this socket is connected to a destination.*
- virtual io::InputStream \* **getInputStream** ()=0  
*Gets the InputStream for this socket.*
- virtual io::OutputStream \* **getOutputStream** ()=0  
*Gets the OutputStream for this socket.*
- virtual int **getSoLinger** () const =0 throw ( SocketException )  
*Gets the linger time.*
- virtual void **setSoLinger** (int linger)=0 throw ( SocketException )  
*Sets the linger time.*
- virtual bool **getKeepAlive** () const =0 throw ( SocketException )  
*Gets the keep alive flag.*
- virtual void **setKeepAlive** (bool keepAlive)=0 throw ( SocketException )  
*Enables/disables the keep alive flag.*
- virtual int **getReceiveBufferSize** () const =0 throw ( SocketException )  
*Gets the receive buffer size.*
- virtual void **setReceiveBufferSize** (int size)=0 throw ( SocketException )  
*Sets the receive buffer size.*
- virtual bool **getReuseAddress** () const =0 throw ( SocketException )



*Gets the reuse address flag.*

- virtual void **setReuseAddress** (bool reuse)=0 throw ( SocketException )  
*Sets the reuse address flag.*
- virtual int **getSendBufferSize** () const =0 throw ( SocketException )  
*Gets the send buffer size.*
- virtual void **setSendBufferSize** (int size)=0 throw ( SocketException )  
*Sets the send buffer size.*
- virtual int **getSoTimeout** () const =0 throw ( SocketException )  
*Gets the timeout for socket operations.*
- virtual void **setSoTimeout** (int timeout)=0 throw ( SocketException )  
*Sets the timeout for socket operations.*

## 6.632.1 Member Typedef Documentation

### 6.632.1.1 typedef apr\_sockaddr\_t\* decaf::net::Socket::SocketAddress

Define the SocketAddress type.

### 6.632.1.2 typedef apr\_socket\_t\* decaf::net::Socket::SocketHandle

Define the SocketHandle type.

## 6.632.2 Constructor & Destructor Documentation

### 6.632.2.1 virtual decaf::net::Socket::~~Socket () [inline, virtual]

## 6.632.3 Member Function Documentation

### 6.632.3.1 virtual void decaf::net::Socket::connect (const char \* *host*, int *port*) throw (SocketException) [pure virtual]

Connects to the specified destination. Closes this socket if connected to another destination.

#### Parameters:

*host* The host of the server to connect to.

*port* The port of the server to connect to.

#### Exceptions:

**IOException** Thrown if a failure occurred in the connect.

Implemented in **decaf::net::BufferedSocket** (p. 819), and **decaf::net::TcpSocket** (p. 3154).

**6.632.3.2** `virtual io::InputStream* decaf::net::Socket::getInputStream ()` [pure virtual]

Gets the InputStream for this socket.

**Returns:**

The InputStream for this socket. NULL if not connected.

Implemented in `decaf::net::BufferedSocket` (p. 819), and `decaf::net::TcpSocket` (p. 3155).

**6.632.3.3** `virtual bool decaf::net::Socket::getKeepAlive () const throw (SocketException )` [pure virtual]

Gets the keep alive flag.

**Returns:**

True if keep alive is enabled.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in `decaf::net::BufferedSocket` (p. 819), and `decaf::net::TcpSocket` (p. 3155).

Referenced by `decaf::net::BufferedSocket::getKeepAlive()`.

**6.632.3.4** `virtual io::OutputStream* decaf::net::Socket::getOutputStream ()` [pure virtual]

Gets the OutputStream for this socket.

**Returns:**

the OutputStream for this socket. NULL if not connected.

Implemented in `decaf::net::BufferedSocket` (p. 819), and `decaf::net::TcpSocket` (p. 3155).

**6.632.3.5** `virtual int decaf::net::Socket::getReceiveBufferSize () const throw (SocketException )` [pure virtual]

Gets the receive buffer size.

**Returns:**

the receive buffer size in bytes.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in `decaf::net::BufferedSocket` (p. 820), and `decaf::net::TcpSocket` (p. 3155).

Referenced by `decaf::net::BufferedSocket::getReceiveBufferSize()`.

**6.632.3.6 virtual bool decaf::net::Socket::getReuseAddress () const throw ( SocketException ) [pure virtual]**

Gets the reuse address flag.

**Returns:**

True if the address can be reused.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 820), and **decaf::net::TcpSocket** (p. 3156).

Referenced by decaf::net::BufferedSocket::getReuseAddress().

**6.632.3.7 virtual int decaf::net::Socket::getSendBufferSize () const throw ( SocketException ) [pure virtual]**

Gets the send buffer size.

**Returns:**

the size in bytes of the send buffer.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 820), and **decaf::net::TcpSocket** (p. 3156).

Referenced by decaf::net::BufferedSocket::getSendBufferSize().

**6.632.3.8 virtual int decaf::net::Socket::getSoLinger () const throw ( SocketException ) [pure virtual]**

Gets the linger time.

**Returns:**

The linger time in seconds.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 820), and **decaf::net::TcpSocket** (p. 3156).

Referenced by decaf::net::BufferedSocket::getSoLinger().

**6.632.3.9 virtual int decaf::net::Socket::getSoTimeout () const throw ( SocketException ) [pure virtual]**

Gets the timeout for socket operations.

**Returns:**

The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to retrieve the information.

Implemented in **decaf::net::BufferedSocket** (p. 821), and **decaf::net::TcpSocket** (p. 3157).

Referenced by **decaf::net::BufferedSocket::getSoTimeout()**.

**6.632.3.10 virtual bool decaf::net::Socket::isConnected () const [pure virtual]**

Indicates whether or not this socket is connected to a destination.

**Returns:**

true if connected

Implemented in **decaf::net::BufferedSocket** (p. 821), and **decaf::net::TcpSocket** (p. 3157).

Referenced by **decaf::net::BufferedSocket::isConnected()**.

**6.632.3.11 virtual void decaf::net::Socket::setKeepAlive (bool *keepAlive*) throw (SocketException ) [pure virtual]**

Enables/disables the keep alive flag.

**Parameters:**

*keepAlive* If true, enables the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 821), and **decaf::net::TcpSocket** (p. 3157).

Referenced by **decaf::net::BufferedSocket::setKeepAlive()**.

**6.632.3.12 virtual void decaf::net::Socket::setReceiveBufferSize (int *size*) throw (SocketException ) [pure virtual]**

Sets the receive buffer size.

**Parameters:**

*size* Number of bytes to set the receive buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 822), and **decaf::net::TcpSocket** (p. 3158).

Referenced by **decaf::net::BufferedSocket::setReceiveBufferSize()**.

**6.632.3.13** `virtual void decaf::net::Socket::setReuseAddress (bool reuse) throw (SocketException )` [pure virtual]

Sets the reuse address flag.

**Parameters:**

*reuse* If true, sets the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 822), and **decaf::net::TcpSocket** (p. 3158).

Referenced by `decaf::net::BufferedSocket::setReuseAddress()`.

**6.632.3.14** `virtual void decaf::net::Socket::setSendBufferSize (int size) throw (SocketException )` [pure virtual]

Sets the send buffer size.

**Parameters:**

*size* The number of bytes to set the send buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 822), and **decaf::net::TcpSocket** (p. 3158).

Referenced by `decaf::net::BufferedSocket::setSendBufferSize()`.

**6.632.3.15** `virtual void decaf::net::Socket::setSoLinger (int linger) throw (SocketException )` [pure virtual]

Sets the linger time.

**Parameters:**

*linger* The linger time in seconds. If 0, linger is off.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implemented in **decaf::net::BufferedSocket** (p. 822), and **decaf::net::TcpSocket** (p. 3158).

Referenced by `decaf::net::BufferedSocket::setSoLinger()`.

**6.632.3.16** `virtual void decaf::net::Socket::setSoTimeout (int timeout) throw (SocketException )` [pure virtual]

Sets the timeout for socket operations.

**Parameters:**

*timeout* The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to set the information.

Implemented in **decaf::net::BufferedSocket** (p. 823), and **decaf::net::TcpSocket** (p. 3159).

Referenced by `decaf::net::BufferedSocket::setSoTimeout()`.

The documentation for this class was generated from the following file:

- `src/main/decaf/net/Socket.h`

## 6.633 decaf::net::SocketError Class Reference

Static utility class to simplify handling of error codes for socket operations.

```
#include <src/main/decaf/net/SocketError.h>
```

### Static Public Member Functions

- static int **getErrorCode** ()  
*Gets the last error appropriate for the platform.*
- static std::string **getErrorString** ()  
*Gets the string description for the last error.*

### 6.633.1 Detailed Description

Static utility class to simplify handling of error codes for socket operations.

### 6.633.2 Member Function Documentation

#### 6.633.2.1 static int decaf::net::SocketError::getErrorCode () [static]

Gets the last error appropriate for the platform.

#### 6.633.2.2 static std::string decaf::net::SocketError::getErrorString () [static]

Gets the string description for the last error.

The documentation for this class was generated from the following file:

- src/main/decaf/net/**SocketError.h**

## 6.634 decaf::net::SocketException Class Reference

Exception for errors when manipulating sockets.

#include <src/main/decaf/net/SocketException.h> Inheritance diagram for decaf::net::SocketException:

### Public Member Functions

- **SocketException** () throw ()
- **SocketException** (const lang::Exception &ex) throw ()
- **SocketException** (const SocketException &ex) throw ()
- **SocketException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **SocketException** (const std::exception \*cause) throw ()  
*Constructor.*
- **SocketException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **SocketException** \* clone () const  
*Clones this exception.*
- virtual ~**SocketException** () throw ()

### 6.634.1 Detailed Description

Exception for errors when manipulating sockets.

### 6.634.2 Constructor & Destructor Documentation

- 6.634.2.1 decaf::net::SocketException::SocketException () throw () [inline]
- 6.634.2.2 decaf::net::SocketException::SocketException (const lang::Exception &ex) throw () [inline]
- 6.634.2.3 decaf::net::SocketException::SocketException (const SocketException &ex) throw () [inline]
- 6.634.2.4 decaf::net::SocketException::SocketException (const char \* file, const int lineNumber, const std::exception \* cause, const char \* msg, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message



**Parameters:**

*file* The file name where exception occurs  
*lineNumber* The line number where the exception occurred.  
*cause* The exception that was the cause for this one to be thrown.  
*msg* The message to report  
... list of primitives that are formatted into the message

### 6.634.2.5 decaf::net::SocketException::SocketException (const std::exception \* *cause*) throw () [inline]

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.634.2.6 decaf::net::SocketException::SocketException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs  
*lineNumber* The line number where the exception occurred.  
*msg* The message to report  
... list of primitives that are formatted into the message

### 6.634.2.7 virtual decaf::net::SocketException::~SocketException () throw () [inline, virtual]

## 6.634.3 Member Function Documentation

### 6.634.3.1 virtual SocketException\* decaf::net::SocketException::clone () const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

Reimplemented in **decaf::net::BindException** (p. 723), **decaf::net::ConnectException** (p. 1130), **decaf::net::NoRouteToHostException** (p. 2419), and **decaf::net::PortUnreachableException** (p. 2524).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/SocketException.h`

## 6.635 decaf::net::SocketFactory Class Reference

**Socket** (p. 2964) Factory implementation for use in Creating Sockets.

```
#include <src/main/decaf/net/SocketFactory.h>
```

### Public Member Functions

- virtual `~SocketFactory()`

### Static Public Member Functions

- static `Socket * createSocket` (const std::string &uri, const `util::Properties` &properties) throw ( `SocketException` )

*Creates and returns a **Socket** (p. 2964) derived Object based on the values defined in the Properties Object that is passed in.*

### 6.635.1 Detailed Description

**Socket** (p. 2964) Factory implementation for use in Creating Sockets. Property Options:

Name Value

-----

inputBufferSize size in bytes of the buffered input stream buffer. Defaults to 10000.

outputBufferSize size in bytes of the buffered output stream buffer. Defaults to 10000.

soLinger linger time for the socket (in microseconds). Defaults to 0.

soKeepAlive keep alive flag for the socket (true/false). Defaults to false.

soReceiveBufferSize The size of the socket receive buffer (in bytes). Defaults to 2MB.

soSendBufferSize The size of the socket send buffer (in bytes). Defaults to 2MB.

soTimeout The timeout of socket IO operations (in microseconds). Defaults to 10000

See also:

`Socket` (p. 2964)

### 6.635.2 Constructor & Destructor Documentation

**6.635.2.1** `virtual decaf::net::SocketFactory::~~SocketFactory()` [inline, virtual]

### 6.635.3 Member Function Documentation

**6.635.3.1** `static Socket* decaf::net::SocketFactory::createSocket` (const std::string & *uri*, const `util::Properties` & *properties*) throw ( `SocketException` )  
[static]

Creates and returns a **Socket** (p. 2964) derived Object based on the values defined in the Properties Object that is passed in.

**Parameters:**

- uri* the **URI** (p. 3308) for the **Socket** (p. 2964) Connection.
- properties* A Properties object that contains configuration details.

**Exceptions:**

*SocketException*.

The documentation for this class was generated from the following file:

- `src/main/decaf/net/SocketFactory.h`

## 6.636 decaf::net::SocketInputStream Class Reference

Input stream for performing reads on a socket.

#include <src/main/decaf/net/SocketInputStream.h> Inheritance diagram for decaf::net::SocketInputStream:

### Public Member Functions

- **SocketInputStream** (**Socket::SocketHandle** socket)  
*Constructor.*
- virtual **~SocketInputStream** ()  
*Destructor.*
- virtual std::size\_t **available** () const throw ( io::IOException )  
*Returns the number of bytes available on the socket to be read right now.*
- virtual int **read** () throw ( io::IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( io::IOException, lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Close - does nothing.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException )  
*Not supported.*
- virtual void **mark** (int readLimit DECAF\_UNUSED)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( io::IOException )  
*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const  
*Determines if this input stream supports the mark and reset methods.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*

- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.636.1 Detailed Description

Input stream for performing reads on a socket. This class will only work properly for blocking sockets.

### 6.636.2 Constructor & Destructor Documentation

#### 6.636.2.1 decaf::net::SocketInputStream::SocketInputStream (Socket::SocketHandle *socket*)

Constructor.

**Parameters:**

*socket* the socket handle.

#### 6.636.2.2 virtual decaf::net::SocketInputStream::~~SocketInputStream () [virtual]

Destructor.

### 6.636.3 Member Function Documentation

**6.636.3.1** `virtual std::size_t decaf::net::SocketInputStream::available () const throw ( io::IOException ) [virtual]`

Returns the number of bytes available on the socket to be read right now.

**Returns:**

The number of bytes currently available to be read on the socket.

Implements **decaf::io::InputStream** (p. 1741).

**6.636.3.2** `virtual void decaf::net::SocketInputStream::close () throw ( decaf::io::IOException ) [virtual]`

Close - does nothing. It is the responsibility of the owner of the socket object to close it.

**Exceptions:**

*IOException*

Implements **decaf::io::Closeable** (p. 1019).

**6.636.3.3** `virtual void decaf::net::SocketInputStream::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3123).

**6.636.3.4** `virtual void decaf::net::SocketInputStream::mark (int readLimit DECAF_UNUSED) [inline, virtual]`

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

**Parameters:**

*readLimit* - max bytes read before marked position is invalid.

Implements **decaf::io::InputStream** (p. 1741).

**6.636.3.5** `virtual bool decaf::net::SocketInputStream::markSupported () const [inline, virtual]`

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

**Returns:**

true if this stream instance supports marks

Implements **decaf::io::InputStream** (p. 1741).

**6.636.3.6** **virtual void decaf::net::SocketInputStream::notify ()**  
**throw ( decaf::lang::exceptions::RuntimeException,**  
**decaf::lang::exceptions::IllegalMonitorStateException )** [inline,  
 virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3124).

**6.636.3.7** **virtual void decaf::net::SocketInputStream::notifyAll**  
**() throw ( decaf::lang::exceptions::RuntimeException,**  
**decaf::lang::exceptions::IllegalMonitorStateException )** [inline,  
 virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

**6.636.3.8** **virtual int decaf::net::SocketInputStream::read (unsigned char \* *buffer*,**  
**std::size\_t *offset*, std::size\_t *bufferSize*) throw ( io::IOException,**  
**lang::exceptions::NullPointerException )** [virtual]

Reads an array of bytes from the buffer. If the desired amount of data is not currently available, this operation will block until the appropriate amount of data is available.

**Parameters:**

***buffer*** (out) the target buffer

***offset*** the position in the buffer to start from.

***bufferSize*** the size of the output buffer.



**Returns:**

the number of bytes read. or -1 if EOF

**Exceptions:**

*IOException* if an error occurs.

Implements **decaf::io::InputStream** (p. 1742).

**6.636.3.9** `virtual int decaf::net::SocketInputStream::read () throw ( io::IOException ) [virtual]`

Reads a single byte from the buffer. If no data is available, blocks until there is.

**Returns:**

The next byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::InputStream** (p. 1742).

**6.636.3.10** `virtual void decaf::net::SocketInputStream::reset () throw ( io::IOException ) [inline, virtual]`

Repositions this stream to the position at the time the mark method was last called on this input stream. If the method markSupported returns true, then: \* If the method mark has not been called since the stream was created, or the number of bytes read from the stream since mark was last called is larger than the argument to mark at that last call, then an IOException might be thrown. \* If such an IOException is not thrown, then the stream is reset to a state such that all the bytes read since the most recent call to mark (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the read method, followed by any bytes that otherwise would have been the next input data as of the time of the call to reset. If the method markSupported returns false, then: \* The call to reset may throw an IOException. \* If an IOException is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the read method depend on the particular type of the input stream.

**Exceptions:**

*IOException*

Implements **decaf::io::InputStream** (p. 1742).

**6.636.3.11** `virtual std::size_t decaf::net::SocketInputStream::skip (std::size_t num) throw ( io::IOException, lang::exceptions::UnsupportedOperationException ) [virtual]`

Not supported.

**Exceptions:**

*an* UnsupportedOperationException.

Implements **decaf::io::InputStream** (p. 1743).

**6.636.3.12** `virtual bool decaf::net::SocketInputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.636.3.13** `virtual void decaf::net::SocketInputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.636.3.14** `virtual void decaf::net::SocketInputStream::wait (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

***IllegalArgumentException*** if an error occurs or the nanos argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.636.3.15** `virtual void decaf::net::SocketInputStream::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

***millisecs*** the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.636.3.16** `virtual void decaf::net::SocketInputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/SocketInputStream.h`

## 6.637 decaf::net::SocketOutputStream Class Reference

Output stream for performing write operations on a socket.

#include <src/main/decaf/net/SocketOutputStream.h> Inheritance diagram for decaf::net::SocketOutputStream:

### Public Member Functions

- **SocketOutputStream** (**Socket::SocketHandle** socket)  
*Constructor.*
- virtual **~SocketOutputStream** ()
- virtual void **write** (unsigned char c) throw ( io::IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( io::IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( io::IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** () throw ( io::IOException )  
*Flush - does nothing.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Close - does nothing.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

### 6.637.1 Detailed Description

Output stream for performing write operations on a socket.

### 6.637.2 Constructor & Destructor Documentation

#### 6.637.2.1 decaf::net::SocketOutputStream::SocketOutputStream (Socket::SocketHandle *socket*)

Constructor.

**Parameters:**

*socket* the socket handle.

#### 6.637.2.2 virtual decaf::net::SocketOutputStream::~~SocketOutputStream () [virtual]

### 6.637.3 Member Function Documentation

#### 6.637.3.1 virtual void decaf::net::SocketOutputStream::close () throw ( decaf::io::IOException ) [virtual]

Close - does nothing. It is the responsibility of the owner of the socket object to close it.

**Exceptions:**

*IOException*

Implements **decaf::io::Closeable** (p. 1019).

#### 6.637.3.2 virtual void decaf::net::SocketOutputStream::flush () throw ( io::IOException ) [inline, virtual]

Flush - does nothing.

**Exceptions:**

***IOException***

Implements **decaf::io::OutputStream** (p. 2470).

**6.637.3.3** **virtual void decaf::net::SocketOutputStream::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]**

Locks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3123).

**6.637.3.4** **virtual void decaf::net::SocketOutputStream::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]**

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3124).

**6.637.3.5** **virtual void decaf::net::SocketOutputStream::notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]**

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

**6.637.3.6** virtual bool decaf::net::SocketOutputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements decaf::util::concurrent::Synchronizable (p. 3126).

**6.637.3.7** virtual void decaf::net::SocketOutputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements decaf::util::concurrent::Synchronizable (p. 3127).

**6.637.3.8** virtual void decaf::net::SocketOutputStream::wait (long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.637.3.9** **virtual void decaf::net::SocketOutputStream::wait (long long *milliseconds*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]**

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.637.3.10** **virtual void decaf::net::SocketOutputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]**

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

**6.637.3.11** **virtual void decaf::net::SocketOutputStream::write (const unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *len*) throw ( io::IOException, lang::exceptions::NullPointerException ) [virtual]**

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The array of bytes to write.



*offset* the position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*IOException* thrown if an error occurs.

*NullPointerException* thrown if buffer is Null.

Implements **decaf::io::OutputStream** (p. 2471).

**6.637.3.12** `virtual void decaf::net::SocketOutputStream::write (const std::vector< unsigned char > & buffer) throw ( io::IOException ) [virtual]`

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

**6.637.3.13** `virtual void decaf::net::SocketOutputStream::write (unsigned char c) throw ( io::IOException ) [virtual]`

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/SocketOutputStream.h`

## 6.638 decaf::net::SocketTimeoutException Class Reference

#include <src/main/decaf/net/SocketTimeoutException.h> Inheritance diagram for decaf::net::SocketTimeoutException:

### Public Member Functions

- **SocketTimeoutException** () throw ()  
*Default Constructor.*
- **SocketTimeoutException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **SocketTimeoutException** (const **SocketTimeoutException** &ex) throw ()  
*Copy Constructor.*
- **SocketTimeoutException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **SocketTimeoutException** (const std::exception \*cause) throw ()  
*Constructor.*
- **SocketTimeoutException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **SocketTimeoutException** \* **clone** () const  
*Clones this exception.*
- virtual ~**SocketTimeoutException** () throw ()

### 6.638.1 Constructor & Destructor Documentation

#### 6.638.1.1 decaf::net::SocketTimeoutException::SocketTimeoutException () throw () [inline]

Default Constructor.

#### 6.638.1.2 decaf::net::SocketTimeoutException::SocketTimeoutException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

**ex** An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

**6.638.1.3 decaf::net::SocketTimeoutException::SocketTimeoutException (const SocketTimeoutException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

**6.638.1.4 decaf::net::SocketTimeoutException::SocketTimeoutException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.638.1.5 decaf::net::SocketTimeoutException::SocketTimeoutException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.638.1.6 decaf::net::SocketTimeoutException::SocketTimeoutException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.638.1.7** `virtual decaf::net::SocketTimeoutException::~~SocketTimeoutException  
() throw () [inline, virtual]`

## **6.638.2 Member Function Documentation**

**6.638.2.1** `virtual SocketTimeoutException* de-  
caf::net::SocketTimeoutException::clone () const [inline,  
virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::InterruptedIOException** (p.1807).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/SocketTimeoutException.h`

## 6.639 activemq::commands::BrokerError::StackTraceElement Struct Reference

```
#include <src/main/activemq/commands/BrokerError.h>
```

### Data Fields

- std::string **ClassName**
- std::string **FileName**
- std::string **MethodName**
- int **LineNumber**

### 6.639.1 Field Documentation

**6.639.1.1** std::string ac-  
tivemq::commands::BrokerError::StackTraceElement::ClassName

**6.639.1.2** std::string ac-  
tivemq::commands::BrokerError::StackTraceElement::FileName

**6.639.1.3** int activemq::commands::BrokerError::StackTraceElement::LineNumber

**6.639.1.4** std::string ac-  
tivemq::commands::BrokerError::StackTraceElement::MethodName

The documentation for this struct was generated from the following file:

- src/main/activemq/commands/**BrokerError.h**

## 6.640 decaf::internal::io::StandardOutputStream Class Reference

Wrapper Around the Standard error Output facility on the current platform.

#include <src/main/decaf/internal/io/StandardOutputStream.h> Inheritance diagram for decaf::internal::io::StandardOutputStream:

### Public Member Functions

- **StandardOutputStream** ()

*Default Constructor.*

- virtual ~**StandardOutputStream** ()

- virtual void **write** (unsigned char c) throw ( decaf::io::IOException )

*Writes a single byte to the output stream.*

- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( decaf::io::IOException )

*Writes an array of bytes to the output stream.*

- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( decaf::io::IOException, lang::exceptions::NullPointerException )

*Writes an array of bytes to the output stream.*

- virtual void **flush** () throw ( decaf::io::IOException )

*Invokes flush on the target output stream.*

- virtual void **close** () throw ( decaf::io::IOException )

*Invokes close on the target output stream.*

- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )

*Locks the object.*

- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )

*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*

- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )

*Unlocks the object.*

- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

### 6.640.1 Detailed Description

Wrapper Around the Standard error Output facility on the current platform. This allows for the use of alternate output methods on platforms or compilers that do not support `std::cerr`.

### 6.640.2 Constructor & Destructor Documentation

#### 6.640.2.1 decaf::internal::io::StandardErrorOutputStream::StandardErrorOutputStream ()

Default Constructor.

#### 6.640.2.2 virtual decaf::internal::io::StandardErrorOutputStream::~~StandardErrorOutputStream () [virtual]

### 6.640.3 Member Function Documentation

#### 6.640.3.1 virtual void decaf::internal::io::StandardErrorOutputStream::close () throw ( decaf::io::IOException ) [inline, virtual]

Invokes close on the target output stream. throws IOException if an error occurs

Implements **decaf::io::Closeable** (p.1019).

#### 6.640.3.2 virtual void decaf::internal::io::StandardErrorOutputStream::flush () throw ( decaf::io::IOException ) [virtual]

Invokes flush on the target output stream. throws **decaf::io::IOException** (p.1820) if an error occurs

Implements **decaf::io::OutputStream** (p.2470).

**6.640.3.3** virtual void decaf::internal::io::StandardErrorOutputStream::lock ()  
throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements decaf::util::concurrent::Synchronizable (p. 3123).

**6.640.3.4** virtual void decaf::internal::io::StandardErrorOutputStream::notify  
( ) throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3124).

**6.640.3.5** virtual void decaf::internal::io::StandardErrorOutputStream::notifyAll  
( ) throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3125).

**6.640.3.6** virtual bool decaf::internal::io::StandardErrorOutputStream::tryLock ()  
throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.



**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.640.3.7** virtual void decaf::internal::io::StandardErrorOutputStream::unlock ()  
throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Unlocks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.640.3.8** virtual void decaf::internal::io::StandardErrorOutputStream::wait  
(long long *millisecs*, int *nanos*) throw ( de-  
caf::lang::exceptions::RuntimeException, de-  
caf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

***millisecs*** the time in milliseconds to wait, or WAIT\_INFINITE

***nanos*** additional time in nanoseconds with a range of 0-999999

**Exceptions:**

***IllegalArgumentException*** if an error occurs or the nanos argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.640.3.9** virtual void decaf::internal::io::StandardErrorOutputStream::wait (long long *millisecs*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements decaf::util::concurrent::Synchronizable (p. 3130).

**6.640.3.10** virtual void decaf::internal::io::StandardErrorOutputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements decaf::util::concurrent::Synchronizable (p. 3131).

**6.640.3.11** virtual void decaf::internal::io::StandardErrorOutputStream::write (const unsigned char \* *buffer*, std::size\_t *offset*, std::size\_t *len*) throw ( decaf::io::IOException, lang::exceptions::NullPointerException ) [virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The array of bytes to write.

*offset* The position to start writing in buffer.

*len* The number of bytes from the buffer to be written.

**Exceptions:**

*decaf::io::IOException* (p. 1820) thrown if an error occurs.

*NullPointerException* if buffer is null.

Implements **decaf::io::OutputStream** (p. 2471).

**6.640.3.12** virtual void decaf::internal::io::StandardErrorOutputStream::write  
(const std::vector< unsigned char > & *buffer*) throw (  
decaf::io::IOException ) [virtual]

Writes an array of bytes to the output stream.

**Parameters:**

*buffer* The bytes to write.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

**6.640.3.13** virtual void decaf::internal::io::StandardErrorOutputStream::write  
(unsigned char *c*) throw ( decaf::io::IOException ) [virtual]

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

The documentation for this class was generated from the following file:

- src/main/decaf/internal/io/**StandardErrorOutputStream.h**

## 6.641 decaf::internal::io::StandardInputStream Class Reference

#include <src/main/decaf/internal/io/StandardInputStream.h> Inheritance diagram for decaf::internal::io::StandardInputStream:

### Public Member Functions

- **StandardInputStream** ()
- virtual **~StandardInputStream** ()
- virtual std::size\_t **available** () const throw ( decaf::io::IOException )  
*Indicates the number of bytes available.*
- virtual int **read** () throw ( decaf::io::IOException )  
*Reads a single byte from the buffer.*
- virtual int **read** (unsigned char \*buffer, std::size\_t offset, std::size\_t bufferSize) throw ( decaf::io::IOException, decaf::lang::exceptions::NullPointerException )  
*Reads an array of bytes from the buffer.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Closes the target input stream.*
- virtual std::size\_t **skip** (std::size\_t num) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Skips over and discards n bytes of data from this input stream.*
- virtual void **mark** (int readLimit DECAF\_UNUSED)  
*Marks the current position in the stream A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes.*
- virtual void **reset** () throw ( decaf::io::IOException )  
*Repositions this stream to the position at the time the mark method was last called on this input stream.*
- virtual bool **markSupported** () const  
*Determines if this input stream supports the mark and reset methods.*

### Protected Member Functions

- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*

- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

## 6.641.1 Constructor & Destructor Documentation

6.641.1.1 decaf::internal::io::StandardInputStream::StandardInputStream ()

6.641.1.2 virtual decaf::internal::io::StandardInputStream::~~StandardInputStream () [virtual]

## 6.641.2 Member Function Documentation

6.641.2.1 virtual std::size\_t decaf::internal::io::StandardInputStream::available () const throw ( decaf::io::IOException ) [virtual]

Indicates the number of bytes available.

### Returns:

The number of bytes until the end of the internal buffer.

Implements **decaf::io::InputStream** (p. 1741).

**6.641.2.2** `virtual void decaf::internal::io::StandardInputStream::close () throw ( decaf::io::IOException )` [inline, virtual]

Closes the target input stream.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements `decaf::io::Closeable` (p. 1019).

**6.641.2.3** `virtual void decaf::internal::io::StandardInputStream::lock () throw ( decaf::lang::exceptions::RuntimeException )` [inline, protected, virtual]

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.641.2.4** `virtual void decaf::internal::io::StandardInputStream::mark (int readLimit DECAF_UNUSED)` [inline, virtual]

Marks the current position in the stream. A subsequent call to the reset method repositions this stream at the last marked position so that subsequent reads re-read the same bytes. If a stream instance reports that marks are supported then the stream will ensure that the same bytes can be read again after the reset method is called so long the readLimit is not reached.

**Parameters:**

*readLimit* - max bytes read before marked position is invalid.

Implements `decaf::io::InputStream` (p. 1741).

**6.641.2.5** `virtual bool decaf::internal::io::StandardInputStream::markSupported () const` [inline, virtual]

Determines if this input stream supports the mark and reset methods. Whether or not mark and reset are supported is an invariant property of a particular input stream instance.

**Returns:**

true if this stream instance supports marks

Implements `decaf::io::InputStream` (p. 1741).

**6.641.2.6** virtual void decaf::internal::io::StandardInputStream::notify  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
 protected, virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3124).

**6.641.2.7** virtual void decaf::internal::io::StandardInputStream::notifyAll  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
 protected, virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3125).

**6.641.2.8** virtual int decaf::internal::io::StandardInputStream::read (unsigned  
 char \* *buffer*, std::size\_t *offset*, std::size\_t *bufferSize*) throw ( decaf::io::IOException,  
 decaf::lang::exceptions::NullPointerException )  
 [virtual]

Reads an array of bytes from the buffer.

**Parameters:**

*buffer* (out) the target buffer.

*offset* the position in the buffer to start reading from.

*bufferSize* the size of the output buffer.

**Returns:**

The number of bytes read.

**Exceptions:**

*IOException* thrown if an error occurs.

*NullPointerException* if buffer is null.

Implements decaf::io::InputStream (p. 1742).

**6.641.2.9** `virtual int decaf::internal::io::StandardInputStream::read () throw ( decaf::io::IOException )` [virtual]

Reads a single byte from the buffer.

**Returns:**

The next byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements `decaf::io::InputStream` (p. 1742).

**6.641.2.10** `virtual void decaf::internal::io::StandardInputStream::reset () throw ( decaf::io::IOException )` [virtual]

Repositions this stream to the position at the time the mark method was last called on this input stream. If the method `markSupported` returns true, then: \* If the method `mark` has not been called since the stream was created, or the number of bytes read from the stream since mark was last called is larger than the argument to `mark` at that last call, then an `IOException` might be thrown. \* If such an `IOException` is not thrown, then the stream is reset to a state such that all the bytes read since the most recent call to `mark` (or since the start of the file, if mark has not been called) will be resupplied to subsequent callers of the `read` method, followed by any bytes that otherwise would have been the next input data as of the time of the call to `reset`. If the method `markSupported` returns false, then: \* The call to `reset` may throw an `IOException`. \* If an `IOException` is not thrown, then the stream is reset to a fixed state that depends on the particular type of the input stream and how it was created. The bytes that will be supplied to subsequent callers of the `read` method depend on the particular type of the input stream.

**Exceptions:**

*IOException*

Implements `decaf::io::InputStream` (p. 1742).

**6.641.2.11** `virtual std::size_t decaf::internal::io::StandardInputStream::skip (std::size_t num) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )` [virtual]

Skips over and discards `n` bytes of data from this input stream. The `skip` method may, for a variety of reasons, end up skipping over some smaller number of bytes, possibly 0. This may result from any of a number of conditions; reaching end of file before `n` bytes have been skipped is only one possibility. The actual number of bytes skipped is returned. If `n` is negative, no bytes are skipped.

The `skip` method of `InputStream` creates a byte array and then repeatedly reads into it until `n` bytes have been read or the end of the stream has been reached. Subclasses are encouraged to provide a more efficient implementation of this method.

**Parameters:**

*num* - the number of bytes to skip



**Returns:**

total bytes skipped

**Exceptions:**

***IOException*** if an error occurs

***UnsupportedOperationException*** If skip is not supported.

Implements **decaf::io::InputStream** (p. 1743).

**6.641.2.12** virtual bool decaf::internal::io::StandardInputStream::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, protected, virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.641.2.13** virtual void decaf::internal::io::StandardInputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, protected, virtual]

Unlocks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.641.2.14** virtual void decaf::internal::io::StandardInputStream::wait (long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

***IllegalArgumentException*** if an error occurs or the nanos argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.641.2.15** `virtual void decaf::internal::io::StandardInputStream::wait (long long milliseconds) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*milliseconds* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.641.2.16** `virtual void decaf::internal::io::StandardInputStream::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, protected, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/io/StandardInputStream.h`

## 6.642 decaf::internal::io::StandardOutputStream Class Reference

#include <src/main/decaf/internal/io/StandardOutputStream.h> Inheritance diagram for decaf::internal::io::StandardOutputStream:

### Public Member Functions

- **StandardOutputStream** ()
- virtual **~StandardOutputStream** ()
- virtual void **write** (unsigned char c) throw ( decaf::io::IOException )  
*Writes a single byte to the output stream.*
- virtual void **write** (const std::vector< unsigned char > &buffer) throw ( decaf::io::IOException )  
*Writes an array of bytes to the output stream.*
- virtual void **write** (const unsigned char \*buffer, std::size\_t offset, std::size\_t len) throw ( decaf::io::IOException, lang::exceptions::NullPointerException )  
*Writes an array of bytes to the output stream.*
- virtual void **flush** () throw ( decaf::io::IOException )  
*Invokes flush on the target output stream.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Invokes close on the target output stream.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )

*Waits on a signal from this object, which is generated by a call to Notify.*

- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals a waiter on this object that it can now wake up and continue.*

- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )

*Signals the waiters on this object that it can now wake up and continue.*

## 6.642.1 Constructor & Destructor Documentation

### 6.642.1.1 decaf::internal::io::StandardOutputStream::StandardOutputStream ()

### 6.642.1.2 virtual decaf::internal::io::StandardOutputStream::~~StandardOutputStream () [virtual]

## 6.642.2 Member Function Documentation

### 6.642.2.1 virtual void decaf::internal::io::StandardOutputStream::close () throw ( decaf::io::IOException ) [inline, virtual]

Invokes close on the target output stream. throws IOException if an error occurs

Implements **decaf::io::Closeable** (p. 1019).

### 6.642.2.2 virtual void decaf::internal::io::StandardOutputStream::flush () throw ( decaf::io::IOException ) [virtual]

Invokes flush on the target output stream. throws IOException if an error occurs

Implements **decaf::io::OutputStream** (p. 2470).

### 6.642.2.3 virtual void decaf::internal::io::StandardOutputStream::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Locks the object.

#### Exceptions:

**RuntimeException** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3123).

**6.642.2.4** virtual void decaf::internal::io::StandardOutputStream::notify  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
 virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3124).

**6.642.2.5** virtual void decaf::internal::io::StandardOutputStream::notifyAll  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
 virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements decaf::util::concurrent::Synchronizable (p. 3125).

**6.642.2.6** virtual bool decaf::internal::io::StandardOutputStream::tryLock () throw  
 ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements decaf::util::concurrent::Synchronizable (p. 3126).

**6.642.2.7** virtual void decaf::internal::io::StandardOutputStream::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.642.2.8** virtual void decaf::internal::io::StandardOutputStream::wait (long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

**Exceptions:**

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.642.2.9** virtual void decaf::internal::io::StandardOutputStream::wait (long long *millisecs*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.642.2.10** `virtual void decaf::internal::io::StandardOutputStream::wait  
( ) throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

**6.642.2.11** `virtual void decaf::internal::io::StandardOutputStream::write (const  
unsigned char * buffer, std::size_t offset, std::size_t len) throw  
( decaf::io::IOException, lang::exceptions::NullPointerException )  
[virtual]`

Writes an array of bytes to the output stream.

#### Parameters:

***buffer*** The array of bytes to write.

***offset, the*** position to start writing in buffer.

***len*** The number of bytes from the buffer to be written.

#### Exceptions:

***IOException*** thrown if an error occurs.

***NullPointerException*** if buffer is null.

Implements **decaf::io::OutputStream** (p. 2471).

**6.642.2.12** `virtual void decaf::internal::io::StandardOutputStream::write (const  
std::vector< unsigned char > & buffer) throw ( decaf::io::IOException )  
[virtual]`

Writes an array of bytes to the output stream.

#### Parameters:

***buffer*** The bytes to write.



**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

**6.642.2.13** virtual void decaf::internal::io::StandardOutputStream::write (unsigned char *c*) throw ( decaf::io::IOException ) [virtual]

Writes a single byte to the output stream.

**Parameters:**

*c* the byte.

**Exceptions:**

*IOException* thrown if an error occurs.

Implements **decaf::io::OutputStream** (p. 2471).

The documentation for this class was generated from the following file:

- src/main/decaf/internal/io/**StandardOutputStream.h**

## 6.643 cms::Startable Class Reference

Interface for a class that implements the start method.

#include <src/main/cms/Startable.h> Inheritance diagram for cms::Startable:

### Public Member Functions

- virtual `~Startable()`
- virtual void `start()` throw ( CMSEException )  
*Starts the service.*

#### 6.643.1 Detailed Description

Interface for a class that implements the start method. An object that implements the **Startable** (p. 3014) interface implies that until its start method is called it will be considered to be in a closed or stopped state and will throw an Exception to indicate that it is not in an started state if one of its methods is called.

Since:

1.0

#### 6.643.2 Constructor & Destructor Documentation

**6.643.2.1** virtual cms::Startable::~~Startable() [inline, virtual]

#### 6.643.3 Member Function Documentation

**6.643.3.1** virtual void cms::Startable::start() throw ( CMSEException ) [pure virtual]

Starts the service.

Exceptions:

*CMSEException* (p. 1031) if an internal error occurs while starting.

Implemented in **activemq::core::ActiveMQConnection** (p. 242).

The documentation for this class was generated from the following file:

- src/main/cms/Startable.h

## 6.644 decaf::lang::STATIC\_CAST\_TOKEN Struct Reference

```
#include <src/main/decaf/lang/Pointer.h>
```

The documentation for this struct was generated from the following file:

- `src/main/decaf/lang/Pointer.h`

## 6.645 activemq::core::ActiveMQConstants::StaticInitializer Class Reference

```
#include <src/main/activemq/core/ActiveMQConstants.h>
```

### Public Member Functions

- **StaticInitializer** ()
- virtual **~StaticInitializer** ()

### Static Public Attributes

- static std::string **destOptions** [NUM\_OPTIONS]
- static std::string **uriParams** [NUM\_PARAMS]
- static std::map< std::string, **DestinationOption** > **destOptionMap**
- static std::map< std::string, **URIParam** > **uriParamsMap**

### 6.645.1 Constructor & Destructor Documentation

**6.645.1.1** **activemq::core::ActiveMQConstants::StaticInitializer::StaticInitializer** ()

**6.645.1.2** virtual **activemq::core::ActiveMQConstants::StaticInitializer::~~StaticInitializer** () [inline, virtual]

### 6.645.2 Field Documentation

**6.645.2.1** std::map<std::string, **DestinationOption**> **activemq::core::ActiveMQConstants::StaticInitializer::destOptionMap** [static]

**6.645.2.2** std::string **activemq::core::ActiveMQConstants::StaticInitializer::destOptions**[NUM\_OPTIONS] [static]

**6.645.2.3** std::string **activemq::core::ActiveMQConstants::StaticInitializer::uriParams**[NUM\_PARAMS] [static]

**6.645.2.4** std::map<std::string, **URIParam**> **activemq::core::ActiveMQConstants::StaticInitializer::uriParamsMap** [static]

The documentation for this class was generated from the following file:

- src/main/activemq/core/**ActiveMQConstants.h**

## 6.646 decaf::util::StlList< E > Class Template Reference

**List** (p.1984) class that wraps the STL list object to provide a simpler interface and additional methods not provided by the STL type.

#include <src/main/decaf/util/StlList.h> Inheritance diagram for decaf::util::StlList< E >:

### Data Structures

- class **ConstStlListIterator**
- class **StlListIterator**

### Public Member Functions

- **StlList** ()  
*Default constructor - does nothing.*
- **StlList** (const **StlList** &source)  
*Copy constructor - copies the content of the given set into this one.*
- **StlList** (const **Collection**< E > &source)  
*Copy constructor - copies the content of the given set into this one.*
- virtual ~**StlList** ()
- virtual bool **equals** (const **StlList** &source) const
- virtual **Iterator**< E > \* **iterator** ()  
*Returns:*  
*an iterator over a set of elements of type T.*
- virtual **Iterator**< E > \* **iterator** () const
- virtual **ListIterator**< E > \* **listIterator** ()  
*Returns:*  
*a list iterator over the elements in this list (in proper sequence).*
- virtual **ListIterator**< E > \* **listIterator** () const
- virtual **ListIterator**< E > \* **listIterator** (std::size\_t index) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )  
*Parameters:*  
*index index of first element to be returned from the list iterator (by a call to the next method).*  
*Returns:*  
*a list iterator of the elements in this list (in proper sequence), starting at the specified position in this list. The specified index indicates the first element that would be returned by an initial call to next. An initial call to previous would return the element with the specified index minus one.*

**Exceptions:**

**IndexOutOfBoundsException** if the index is out of range ( $index < 0 \parallel index > size()$  (p. 1062))

- virtual **ListIterator**< E > \* **listIterator** (std::size\_t index) const throw ( default::lang::exceptions::IndexOutOfBoundsException )
- virtual void **copy** (const **StlList** &source)

- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )

*Removes all of the elements from this collection (optional operation).*

*The collection will be empty after this method returns.*

*This implementation iterates over this collection, removing each element using the **Iterator.remove** (p. 1833) operation. Most implementations will probably choose to override this method for efficiency.*

*Note that this implementation will throw an **UnsupportedOperationException** if the iterator returned by this collection's iterator method does not implement the remove method and this collection is non-empty.*

**Exceptions:**

**UnsupportedOperationException** if the clear operation is not supported by this collection

- virtual bool **contains** (const E &value) const throw ( lang::Exception )

*Returns true if this collection contains the specified element.*

*This implementation iterates over the elements in the collection, checking each element in turn for equality with the specified element.*

**Parameters:**

*value* - the value whose presence is to be queried for in this **Collection** (p. 1054).

**Returns:**

*true if the value is contained in this collection*

**Exceptions:**

**Exception** if an error occurs,

- virtual std::size\_t **indexOf** (const E &value) throw ( default::lang::exceptions::NoSuchElementException )

*Returns the index of the first occurrence of the specified element in this list, or -1 if this list does not contain the element.*

*More formally, returns the lowest index  $i$  such that  $get(i) == value$ , or -1 if there is no such index.*

**Parameters:**

*value* - element to search for

**Returns:**

*the index of the first occurrence of the specified element in this list,*

**Exceptions:**

**NoSuchElementException** if value is not in the list

- virtual std::size\_t **lastIndexOf** (const E &value) throw ( default::lang::exceptions::NoSuchElementException )

*Returns the index of the last occurrence of the specified element in this list, or -1 if this list does not contain the element.*

*More formally, returns the highest index  $i$  such that  $get(i) == value$  or -1 if there is no such index.*

**Parameters:***value* - element to search for**Returns:***the index of the last occurrence of the specified element in this list.***Exceptions:****NoSuchElementException** if *value* is not in the list

- virtual bool **isEmpty** () const

*Returns true if this collection contains no elements.**This implementation returns **size()** (p. 1062) == 0.***Returns:***true if the size method return 0.*

- virtual std::size\_t **size** () const

*Returns the number of elements in this collection.**If this collection contains more than Integer.MAX\_VALUE elements, returns Integer.MAX\_VALUE.***Returns:***the number of elements in this collection*

- virtual E **get** (std::size\_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Gets the element contained at position passed.***Parameters:***index* - position to get**Returns:***value at index*

- virtual E **set** (std::size\_t index, const E &element) throw ( decaf::lang::exceptions::IndexOutOfBoundsException )

*Replaces the element at the specified position in this list with the specified element.***Parameters:***index* - index of the element to replace*element* - element to be stored at the specified position**Returns:***the element previously at the specified position***Exceptions:****IndexOutOfBoundsException** - if the *index* is greater than size

- virtual bool **add** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )

*Returns true if this collection changed as a result of the call.**(Returns false if this collection does not permit duplicates and already contains the specified element.)**Collections that support this operation may place limitations on what elements may be added to this collection. In particular, some collections will refuse to add null elements, and others will impose restrictions on the type of elements that may be added. **Collection** (p. 1054) classes should clearly specify in their documentation any restrictions on what elements may be added.*

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

For non-pointer values, i.e. class instances or string's the object will be copied into the collection, thus the object must support being copied, must not hide the copy constructor and assignment operator.

**Parameters:**

*value* - reference to the element to add.

**Returns:**

*true* if the element was added

**Exceptions:**

**UnsupportedOperationException**

**IllegalArgumentException**

**IllegalStateException** if the element cannot be added at this time due to insertion restrictions

- virtual void **add** (std::size\_t index, const E &element) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IndexOutOfBoundsException )

*Inserts the specified element at the specified position in this list.*

*Shifts the element currently at that position (if any) and any subsequent elements to the right (adds one to their indices).*

**Parameters:**

*index* - index at which the specified element is to be inserted

*element* - element to be inserted

**Exceptions:**

**IndexOutOfBoundsException** - if the index is greater than size

**UnsupportedOperationException** - If the collection is non-modifiable.

- virtual bool **addAll** (std::size\_t index, const Collection< E > &source) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException )

*Inserts all of the elements in the specified collection into this list at the specified position (optional operation).*

*Shifts the element currently at that position (if any) and any subsequent elements to the right (increases their indices). The new elements will appear in this list in the order that they are returned by the specified collection's iterator. The behavior of this operation is undefined if the specified collection is modified while the operation is in progress. (Note that this will occur if the specified collection is this list, and it's nonempty.)*

**Parameters:**

*index* The index at which to insert the first element from the specified collection

*source* The **Collection** (p. 1054) containing elements to be added to this list

**Returns:**

*true* if this list changed as a result of the call

**Exceptions:**

**IndexOutOfBoundsException** - if the index is greater than size

**UnsupportedOperationException** - If the collection is non-modifiable.

- virtual bool **remove** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )

*Removes a single instance of the specified element from this collection, if it is present (optional operation).*



More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an *UnsupportedOperationException* if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

**Parameters:**

*value* - element to be removed from this collection, if present

**Returns:**

true if an element was removed as a result of this call

**Exceptions:**

*UnsupportedOperationException* if the remove operation is not supported by this collection.

*IllegalArgumentException* If the value is not a valid entry for this *Collection* (p. 1054).

- virtual E **remove** (std::size\_t index) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException )

Removes the element at the specified position in this list.

Shifts any subsequent elements to the left (subtracts one from their indices). Returns the element that was removed from the list.

**Parameters:**

*index* - the index of the element to be removed

**Returns:**

the element previously at the specified position

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

## 6.646.1 Detailed Description

```
template<typename E> class decaf::util::StlList< E >
```

**List** (p.1984) class that wraps the STL list object to provide a simpler interface and additional methods not provided by the STL type.

## 6.646.2 Constructor & Destructor Documentation

**6.646.2.1**    template<typename E> decaf::util::StlList< E >::StlList ()    [inline]

Default constructor - does nothing.

**6.646.2.2**    template<typename E> decaf::util::StlList< E >::StlList (const StlList< E > & *source*)    [inline]

Copy constructor - copies the content of the given set into this one.

**Parameters:**

*source* The source set.

**6.646.2.3** `template<typename E> decaf::util::StlList< E >::StlList (const Collection< E > & source) [inline]`

Copy constructor - copies the content of the given set into this one.

**Parameters:**

*source* The source set.

**6.646.2.4** `template<typename E> virtual decaf::util::StlList< E >::~StlList () [inline, virtual]`

### 6.646.3 Member Function Documentation

**6.646.3.1** `template<typename E> virtual void decaf::util::StlList< E >::add (std::size_t index, const E & element) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IndexOutOfBoundsException ) [inline, virtual]`

Inserts the specified element at the specified position in this list.

Shifts the element currently at that position (if any) and any subsequent elements to the right (adds one to their indices).

**Parameters:**

*index* - index at which the specified element is to be inserted

*element* - element to be inserted

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

Implements `decaf::util::List< E >` (p.1985).

**6.646.3.2** `template<typename E> virtual bool decaf::util::StlList< E >::add (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException ) [inline, virtual]`

Returns true if this collection changed as a result of the call.

(Returns false if this collection does not permit duplicates and already contains the specified element.)

Collections that support this operation may place limitations on what elements may be added to this collection. In particular, some collections will refuse to add null elements, and others will impose restrictions on the type of elements that may be added. **Collection** (p.1054) classes should clearly specify in their documentation any restrictions on what elements may be added.

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

For non-pointer values, i.e. class instances or string's the object will be copied into the collection, thus the object must support being copied, must not hide the copy constructor and assignment operator.

**Parameters:**

*value* - reference to the element to add.

**Returns:**

true if the element was added

**Exceptions:**

*UnsupportedOperationException*

*IllegalArgumentException*

*IllegalStateException* if the element cannot be added at this time due to insertion restrictions

Implements **decaf::util::Collection< E >** (p. 1056).

Referenced by decaf::util::StlList< Pointer< BackupTransport > >::addAll().

```
6.646.3.3  template<typename E> virtual bool decaf::util::StlList< E
              >::addAll (std::size_t index, const Collection< E > & source)
              throw ( decaf::lang::exceptions::UnsupportedOperationException,
                      decaf::lang::exceptions::IndexOutOfBoundsException ) [inline,
              virtual]
```

Inserts all of the elements in the specified collection into this list at the specified position (optional operation).

Shifts the element currently at that position (if any) and any subsequent elements to the right (increases their indices). The new elements will appear in this list in the order that they are returned by the specified collection's iterator. The behavior of this operation is undefined if the specified collection is modified while the operation is in progress. (Note that this will occur if the specified collection is this list, and it's nonempty.)

**Parameters:**

*index* The index at which to insert the first element from the specified collection

*source* The **Collection** (p. 1054) containing elements to be added to this list

**Returns:**

true if this list changed as a result of the call

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

Implements **decaf::util::List< E >** (p. 1985).

**6.646.3.4** `template<typename E> virtual void decaf::util::StlList< E >::clear ()  
throw ( lang::exceptions::UnsupportedOperationException ) [inline,  
virtual]`

Removes all of the elements from this collection (optional operation).

The collection will be empty after this method returns.

This implementation iterates over this collection, removing each element using the **Iterator.remove** (p.1833) operation. Most implementations will probably choose to override this method for efficiency.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the remove method and this collection is non-empty.

**Exceptions:**

***UnsupportedOperationException*** if the clear operation is not supported by this collection

Reimplemented from `decaf::util::AbstractCollection< E >` (p.151).

**6.646.3.5** `template<typename E> virtual bool decaf::util::StlList< E >::contains  
(const E & value) const throw ( lang::Exception ) [inline, virtual]`

Returns true if this collection contains the specified element.

This implementation iterates over the elements in the collection, checking each element in turn for equality with the specified element.

**Parameters:**

*value* - the value whose presence is to be queried for in this **Collection** (p.1054).

**Returns:**

true if the value is contained in this collection

**Exceptions:**

***Exception*** if an error occurs,

Reimplemented from `decaf::util::AbstractCollection< E >` (p.152).

**6.646.3.6** `template<typename E> virtual void decaf::util::StlList< E >::copy (const  
StlList< E > & source) [inline, virtual]`

Referenced by `decaf::util::StlList< Pointer< BackupTransport > >::StlList()`.

**6.646.3.7** `template<typename E> virtual bool decaf::util::StlList< E >::equals  
(const StlList< E > & source) const [inline, virtual]`

**6.646.3.8** `template<typename E> virtual E decaf::util::StlList< E >::get (std::size_t  
index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException  
) [inline, virtual]`

Gets the element contained at position passed.

**Parameters:**

*index* - position to get

**Returns:**

value at index

Implements **decaf::util::List< E >** (p. 1986).

**6.646.3.9** `template<typename E> virtual std::size_t decaf::util::StlList< E >::indexOf (const E & value) throw ( decaf::lang::exceptions::NoSuchElementException ) [inline, virtual]`

Returns the index of the first occurrence of the specified element in this list, or -1 if this list does not contain the element.

More formally, returns the lowest index *i* such that `get(i) == value`, or -1 if there is no such index.

**Parameters:**

*value* - element to search for

**Returns:**

the index of the first occurrence of the specified element in this list,

**Exceptions:**

*NoSuchElementException* if value is not in the list

Implements **decaf::util::List< E >** (p. 1986).

**6.646.3.10** `template<typename E> virtual bool decaf::util::StlList< E >::isEmpty () const [inline, virtual]`

Returns true if this collection contains no elements.

This implementation returns `size() (p. 1062) == 0`.

**Returns:**

true if the size method return 0.

Reimplemented from **decaf::util::AbstractCollection< E >** (p. 153).

**6.646.3.11** `template<typename E> virtual Iterator<E>* decaf::util::StlList< E >::iterator () const [inline, virtual]`

Implements **decaf::lang::Iterable< E >** (p. 1830).

**6.646.3.12** `template<typename E> virtual Iterator<E>* decaf::util::StlList< E >::iterator () [inline, virtual]`

**Returns:**

an iterator over a set of elements of type T.

Implements `decaf::lang::Iterable< E >` (p. 1830).

**6.646.3.13** `template<typename E> virtual std::size_t decaf::util::StlList< E >::lastIndexOf (const E & value) throw ( decaf::lang::exceptions::NoSuchElementException ) [inline, virtual]`

Returns the index of the last occurrence of the specified element in this list, or -1 if this list does not contain the element.

More formally, returns the highest index *i* such that `get(i) == value` or -1 if there is no such index.

**Parameters:**

*value* - element to search for

**Returns:**

the index of the last occurrence of the specified element in this list.

**Exceptions:**

*NoSuchElementException* if *value* is not in the list

Implements `decaf::util::List< E >` (p. 1987).

**6.646.3.14** `template<typename E> virtual ListIterator<E>* decaf::util::StlList< E >::listIterator (std::size_t index) const throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [inline, virtual]`

Implements `decaf::util::List< E >` (p. 1987).

**6.646.3.15** `template<typename E> virtual ListIterator<E>* decaf::util::StlList< E >::listIterator (std::size_t index) throw ( decaf::lang::exceptions::IndexOutOfBoundsException ) [inline, virtual]`

**Parameters:**

*index* index of first element to be returned from the list iterator (by a call to the next method).

**Returns:**

a list iterator of the elements in this list (in proper sequence), starting at the specified position in this list. The specified index indicates the first element that would be returned by an initial call to next. An initial call to previous would return the element with the specified index minus one.

**Exceptions:**

*IndexOutOfBoundsException* if the index is out of range (index < 0 || index > size() (p. 1062))

Implements **decaf::util::List< E >** (p. 1988).

**6.646.3.16** `template<typename E> virtual ListIterator<E>* decaf::util::StlList< E >::listIterator () const [inline, virtual]`

Implements **decaf::util::List< E >** (p. 1988).

**6.646.3.17** `template<typename E> virtual ListIterator<E>* decaf::util::StlList< E >::listIterator () [inline, virtual]`

**Returns:**

a list iterator over the elements in this list (in proper sequence).

Implements **decaf::util::List< E >** (p. 1988).

**6.646.3.18** `template<typename E> virtual E decaf::util::StlList< E >::remove (std::size_t index) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IndexOutOfBoundsException ) [inline, virtual]`

Removes the element at the specified position in this list.

Shifts any subsequent elements to the left (subtracts one from their indices). Returns the element that was removed from the list.

**Parameters:**

*index* - the index of the element to be removed

**Returns:**

the element previously at the specified position

**Exceptions:**

*IndexOutOfBoundsException* - if the index is greater than size

*UnsupportedOperationException* - If the collection is non-modifiable.

Implements **decaf::util::List< E >** (p. 1989).

**6.646.3.19** `template<typename E> virtual bool decaf::util::StlList< E >::remove (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException ) [inline, virtual]`

Removes a single instance of the specified element from this collection, if it is present (optional operation).

More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

#### Parameters:

*value* - element to be removed from this collection, if present

#### Returns:

true if an element was removed as a result of this call

#### Exceptions:

***UnsupportedOperationException*** if the remove operation is not supported by this collection.

***IllegalArgumentException*** If the value is not a valid entry for this **Collection** (p. 1054).

Reimplemented from `decaf::util::AbstractCollection< E >` (p. 155).

```
6.646.3.20  template<typename E> virtual E decaf::util::StlList< E
            >::set (std::size_t index, const E & element) throw (
            decaf::lang::exceptions::IndexOutOfBoundsException ) [inline,
            virtual]
```

Replaces the element at the specified position in this list with the specified element.

#### Parameters:

*index* - index of the element to replace

*element* - element to be stored at the specified position

#### Returns:

the element previously at the specified position

#### Exceptions:

***IndexOutOfBoundsException*** - if the index is greater than size

Implements `decaf::util::List< E >` (p. 1989).

```
6.646.3.21  template<typename E> virtual std::size_t decaf::util::StlList< E >::size
            () const [inline, virtual]
```

Returns the number of elements in this collection.

If this collection contains more than `Integer.MAX_VALUE` elements, returns `Integer.MAX_VALUE`.



**Returns:**

the number of elements in this collection

Implements **decaf::util::Collection**< E > (p. 1062).

Referenced by decaf::util::StlList< Pointer< BackupTransport > >::add(), decaf::util::StlList< Pointer< BackupTransport > >::addAll(), decaf::util::StlList< Pointer< BackupTransport > >::get(), decaf::util::StlList< Pointer< BackupTransport > >::lastIndexOf(), decaf::util::StlList< Pointer< BackupTransport > >::listIterator(), decaf::util::StlList< Pointer< BackupTransport > >::remove(), and decaf::util::StlList< Pointer< BackupTransport > >::set().

The documentation for this class was generated from the following file:

- src/main/decaf/util/**StlList.h**

## 6.647 decaf::util::StlMap< K, V, COMPARATOR > Class Template Reference

**Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.

#include <src/main/decaf/util/StlMap.h> Inheritance diagram for `decaf::util::StlMap< K, V, COMPARATOR >`:

### Public Member Functions

- **StlMap** ()  
*Default constructor - does nothing.*
- **StlMap** (const **StlMap** &source)  
*Copy constructor - copies the content of the given map into this one.*
- **StlMap** (const **Map**< K, V, COMPARATOR > &source)  
*Copy constructor - copies the content of the given map into this one.*
- virtual ~**StlMap** ()
- virtual bool **equals** (const **StlMap** &source) const
- virtual bool **equals** (const **Map**< K, V, COMPARATOR > &source) const  
*Comparison, equality is dependent on the method of determining if the element are equal.*  
**Parameters:**  
*source* - **Map** (p. 2094) to compare to this one.  
**Returns:**  
*true if the **Map** (p. 2094) passed is equal in value to this one.*
- virtual void **copy** (const **StlMap** &source)
- virtual void **copy** (const **Map**< K, V, COMPARATOR > &source)  
*Copies the content of the source map into this map.*  
*Erases all existing data in this map.*  
**Parameters:**  
*source* The source object to copy from.
- virtual void **clear** () throw ( decaf::lang::exceptions::UnsupportedOperationException )  
*Removes all keys and values from this map.*  
**Exceptions:**  
*UnsupportedOperationException* if this map is unmodifiable.
- virtual bool **containsKey** (const K &key) const  
*Indicates whether or this map contains a value for the given key.*

**Parameters:**

*key* The key to look up.

**Returns:**

*true if this map contains the value, otherwise false.*

- virtual bool **containsValue** (const V &value) const

*Indicates whether or this map contains a value for the given value, i.e. they are equal, this is done by operator== so the types must pass equivalence testing in this manner.*

**Parameters:**

*value* The Value to look up.

**Returns:**

*true if this map contains the value, otherwise false.*

- virtual bool **isEmpty** () const

**Returns:**

*if the **Map** (p. 2094) contains any element or not, TRUE or FALSE*

- virtual std::size\_t **size** () const

**Returns:**

*The number of elements (key/value pairs) in this map.*

- virtual V & **get** (const K &key) throw ( lang::exceptions::NoSuchElementException )

*Gets the value mapped to the specified key in the **Map** (p. 2094).*

*If there is no element in the map whose key is equivalent to the key provided then a *NoSuchElementException* is thrown.*

**Parameters:**

*key* The search key.

**Returns:**

*A reference to the value for the given key.*

**Exceptions:**

***NoSuchElementException** if the key requests doesn't exist in the **Map** (p. 2094).*

- virtual const V & **get** (const K &key) const throw ( lang::exceptions::NoSuchElementException )

*Gets the value mapped to the specified key in the **Map** (p. 2094).*

*If there is no element in the map whose key is equivalent to the key provided then a *NoSuchElementException* is thrown.*

**Parameters:**

*key* The search key.

**Returns:**

*A {const} reference to the value for the given key.*

**Exceptions:**

***NoSuchElementException** if the key requests doesn't exist in the **Map** (p. 2094).*

- virtual void **put** (const K &key, const V &value) throw ( decaf::lang::exceptions::UnsupportedOperationException )

*Sets the value for the specified key.*

**Parameters:**

*key* The target key.  
*value* The value to be set.

**Exceptions:**

**UnsupportedOperationException** if this map is unmodifiable.

- virtual void **putAll** (const **StlMap**< K, V, COMPARATOR > &other) throw ( decaf::lang::exceptions::UnsupportedOperationException )

- virtual void **putAll** (const **Map**< K, V, COMPARATOR > &other) throw ( decaf::lang::exceptions::UnsupportedOperationException )

*Stores a copy of the Mappings contained in the other Map (p. 2094) in this one.*

**Parameters:**

*other* A **Map** (p. 2094) instance whose elements are to all be inserted in this **Map** (p. 2094).

**Exceptions:**

**UnsupportedOperationException** If the implementing class does not support the putAll operation.

- virtual V **remove** (const K &key) throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException )

*Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.*

**Parameters:**

*key* The search key.

**Returns:**

*a copy of the element that was previously mapped to the given key*

**Exceptions:**

**NoSuchElementException** if this key is not in the **Map** (p. 2094).  
**UnsupportedOperationException** if this map is unmodifiable.

- virtual std::vector< K > **keySet** () const

*Returns a Set (p. 2905) view of the mappings contained in this map.*

*The set is backed by the map, so changes to the map are reflected in the set, and vice-versa. If the map is modified while an iteration over the set is in progress (except through the iterator's own remove operation, or through the setValue operation on a map entry returned by the iterator) the results of the iteration are undefined. The set supports element removal, which removes the corresponding mapping from the map, via the **Iterator.remove** (p. 1833), **Set.remove** (p. 155), **removeAll**, **retainAll** and **clear** operations. It does not support the **add** or **addAll** operations.*

**Returns:**

*the entire set of keys in this map as a std::vector.*

- virtual std::vector< V > **values** () const

**Returns:**

*the entire set of values in this map as a std::vector.*

- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )

*Locks the object.*

- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.647.1 Detailed Description

```
template<typename K, typename V, typename COMPARATOR = std::less<K>>
class decaf::util::StlMap< K, V, COMPARATOR >
```

**Map** (p. 2094) template that wraps around a std::map to provide a more user-friendly interface and to provide common functions that do not exist in std::map.

**Since:**

1.0

### 6.647.2 Constructor & Destructor Documentation

**6.647.2.1**

```
template<typename K, typename V, typename COMPARATOR =
std::less<K>> decaf::util::StlMap< K, V, COMPARATOR >::StlMap ()
[inline]
```

Default constructor - does nothing.

**6.647.2.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::StlMap< K, V, COMPARATOR >::StlMap (const StlMap< K, V, COMPARATOR > & source) [inline]`

Copy constructor - copies the content of the given map into this one.

**Parameters:**

*source* The source map.

**6.647.2.3** `template<typename K, typename V, typename COMPARATOR = std::less<K>> decaf::util::StlMap< K, V, COMPARATOR >::StlMap (const Map< K, V, COMPARATOR > & source) [inline]`

Copy constructor - copies the content of the given map into this one.

**Parameters:**

*source* The source map.

**6.647.2.4** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual decaf::util::StlMap< K, V, COMPARATOR >::~StlMap () [inline, virtual]`

## 6.647.3 Member Function Documentation

**6.647.3.1** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::clear () throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Removes all keys and values from this map.

**Exceptions:**

*UnsupportedOperationException* if this map is unmodifiable.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2095).

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::copy()`.

**6.647.3.2** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARATOR >::containsKey (const K & key) const [inline, virtual]`

Indicates whether or this map contains a value for the given key.

**Parameters:**

*key* The key to look up.

**Returns:**

true if this map contains the value, otherwise false.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2096).

Referenced by **decaf::util::StlMap< std::string, cms::Topic \* >::equals()**.

**6.647.3.3** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARATOR  
>::containsValue (const V & value) const [inline, virtual]`

Indicates whether or this map contains a value for the given value, i.e.

they are equal, this is done by operator== so the types must pass equivalence testing in this manner.

**Parameters:**

*value* The Value to look up.

**Returns:**

true if this map contains the value, otherwise false.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2097).

**6.647.3.4** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR  
>::copy (const Map< K, V, COMPARATOR > & source) [inline,  
virtual]`

Copies the content of the source map into this map.

Erases all existing data in this map.

**Parameters:**

*source* The source object to copy from.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2098).

**6.647.3.5** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR  
>::copy (const StlMap< K, V, COMPARATOR > & source) [inline,  
virtual]`

Referenced by **decaf::util::StlMap< std::string, cms::Topic \* >::StlMap()**.

**6.647.3.6** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARATOR  
>::equals (const Map< K, V, COMPARATOR > & source) const  
[inline, virtual]`

Comparison, equality is dependent on the method of determining if the element are equal.

**Parameters:**

*source* - **Map** (p. 2094) to compare to this one.

**Returns:**

true if the **Map** (p. 2094) passed is equal in value to this one.

Implements **decaf::util::Map**< **K**, **V**, **COMPARATOR** > (p. 2098).

**6.647.3.7** `template<typename K, typename V, typename COMPARETOR =  
std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARETOR  
>::equals (const StlMap< K, V, COMPARETOR > & source) const  
[inline, virtual]`

**6.647.3.8** `template<typename K, typename V, typename COMPARETOR  
= std::less<K>> virtual const V& decaf::util::StlMap< K,  
V, COMPARETOR >::get (const K & key) const throw (  
lang::exceptions::NoSuchElementException ) [inline, virtual]`

Gets the value mapped to the specified key in the **Map** (p. 2094).

If there is no element in the map whose key is equivalent to the key provided then a `NoSuchElementException` is thrown.

**Parameters:**

*key* The search key.

**Returns:**

A {const} reference to the value for the given key.

**Exceptions:**

*NoSuchElementException* if the key requests doesn't exist in the **Map** (p. 2094).

Implements **decaf::util::Map**< **K**, **V**, **COMPARATOR** > (p. 2098).

**6.647.3.9** `template<typename K, typename V, typename COMPARETOR  
= std::less<K>> virtual V& decaf::util::StlMap< K,  
V, COMPARETOR >::get (const K & key) throw (  
lang::exceptions::NoSuchElementException ) [inline, virtual]`

Gets the value mapped to the specified key in the **Map** (p. 2094).

If there is no element in the map whose key is equivalent to the key provided then a `NoSuchElementException` is thrown.

**Parameters:**

*key* The search key.

**Returns:**

A reference to the value for the given key.



**Exceptions:**

*NoSuchElementException* if the key requests doesn't exist in the **Map** (p. 2094).

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2099).

```
6.647.3.10  template<typename K, typename V, typename COMPARATOR =
            std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARATOR
            >::isEmpty () const [inline, virtual]
```

**Returns:**

if the **Map** (p. 2094) contains any element or not, TRUE or FALSE

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2100).

```
6.647.3.11  template<typename K, typename V, typename COMPARATOR =
            std::less<K>> virtual std::vector<K> decaf::util::StlMap< K, V,
            COMPARATOR >::keySet () const [inline, virtual]
```

Returns a **Set** (p. 2905) view of the mappings contained in this map.

The set is backed by the map, so changes to the map are reflected in the set, and vice-versa. If the map is modified while an iteration over the set is in progress (except through the iterator's own remove operation, or through the setValue operation on a map entry returned by the iterator) the results of the iteration are undefined. The set supports element removal, which removes the corresponding mapping from the map, via the **Iterator.remove** (p. 1833), **Set.remove** (p. 155), **removeAll**, **retainAll** and **clear** operations. It does not support the **add** or **addAll** operations.

**Returns:**

the entire set of keys in this map as a std::vector.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2101).

```
6.647.3.12  template<typename K, typename V, typename COMPARATOR =
            std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR
            >::lock () throw ( decaf::lang::exceptions::RuntimeException ) [inline,
            virtual]
```

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3123).

**6.647.3.13** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::notify () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying one of the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3124).

**6.647.3.14** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::notifyAll () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [inline, virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

**6.647.3.15** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::put (const K & key, const V & value) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Sets the value for the specified key.

**Parameters:**

***key*** The target key.

***value*** The value to be set.

**Exceptions:**

***UnsupportedOperationException*** if this map is unmodifiable.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2102).

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::putAll()`.

**6.647.3.16** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::putAll (const Map< K, V, COMPARATOR > & other) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Stores a copy of the Mappings contained in the other **Map** (p. 2094) in this one.

**Parameters:**

*other* A **Map** (p. 2094) instance whose elements are to all be inserted in this **Map** (p. 2094).

**Exceptions:**

*UnsupportedOperationException* If the implementing class does not support the putAll operation.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2102).

**6.647.3.17** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::putAll (const StlMap< K, V, COMPARATOR > & other) throw ( decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::copy()`.

**6.647.3.18** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual V decaf::util::StlMap< K, V, COMPARATOR >::remove (const K & key) throw ( decaf::lang::exceptions::NoSuchElementException, decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Removes the value (key/value pair) for the specified key from the map, returns a copy of the value that was mapped to the key.

**Parameters:**

*key* The search key.

**Returns:**

a copy of the element that was previously mapped to the given key

**Exceptions:**

*NoSuchElementException* if this key is not in the **Map** (p. 2094).

*UnsupportedOperationException* if this map is unmodifiable.

Implements **decaf::util::Map< K, V, COMPARATOR >** (p. 2103).

**6.647.3.19** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual std::size_t decaf::util::StlMap< K, V, COMPARATOR >::size () const [inline, virtual]`

**Returns:**

The number of elements (key/value pairs) in this map.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2104).

**6.647.3.20** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual bool decaf::util::StlMap< K, V, COMPARATOR >::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3126).

**6.647.3.21** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR >::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Unlocks the object.

**Exceptions:**

*RuntimeException* if an error occurs while unlocking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3127).

**6.647.3.22** `template<typename K, typename V, typename COMPARATOR = std::less<K>> virtual std::vector<V> decaf::util::StlMap< K, V, COMPARATOR >::values () const [inline, virtual]`

**Returns:**

the entire set of values in this map as a `std::vector`.

Implements `decaf::util::Map< K, V, COMPARATOR >` (p. 2105).

Referenced by `decaf::util::StlMap< std::string, cms::Topic * >::values()`.

```

6.647.3.23  template<typename K, typename V, typename COMPARATOR
            = std::less<K>> virtual void decaf::util::StlMap< K,
            V, COMPARATOR >::wait (long long millisecs, int
            nanos) throw ( decaf::lang::exceptions::RuntimeException,
            decaf::lang::exceptions::IllegalArgumentException,
            decaf::lang::exceptions::IllegalMonitorStateException,
            decaf::lang::exceptions::InterruptedException ) [inline, virtual]

```

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE  
*nanos* additional time in nanoseconds with a range of 0-999999

#### Exceptions:

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]  
*RuntimeException* if an error occurs while waiting on the object.  
*InterruptedException* if the wait is interrupted before it completes.  
*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

```

6.647.3.24  template<typename K, typename V, typename COMPARATOR
            = std::less<K>> virtual void decaf::util::StlMap<
            K, V, COMPARATOR >::wait (long long millisecs)
            throw ( decaf::lang::exceptions::RuntimeException,
            decaf::lang::exceptions::IllegalMonitorStateException,
            decaf::lang::exceptions::InterruptedException ) [inline, virtual]

```

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.  
*InterruptedException* if the wait is interrupted before it completes.  
*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.647.3.25** `template<typename K, typename V, typename COMPARATOR =  
std::less<K>> virtual void decaf::util::StlMap< K, V, COMPARATOR  
>::wait () throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/StlMap.h`

## 6.648 decaf::util::StlQueue< T > Class Template Reference

The **Queue** (p. 2671) class accepts messages with an `psuh(m)` command where `m` is the message to be queued.

`#include <src/main/decaf/util/StlQueue.h>`Inheritance diagram for `decaf::util::StlQueue< T >`:

### Data Structures

- class **QueueIterator**

### Public Member Functions

- **StlQueue** ()
- virtual **~StlQueue** ()
- **Iterator**< T > \* **iterator** ()  
*Gets an **Iterator** (p. 1832) over this **Queue** (p. 2671).*
- void **clear** ()  
*Empties this queue.*
- T & **front** ()  
*Returns a Reference to the element at the head of the queue.*
- const T & **front** () const  
*Returns a Reference to the element at the head of the queue.*
- T & **back** ()  
*Returns a Reference to the element at the tail of the queue.*
- const T & **back** () const  
*Returns a Reference to the element at the tail of the queue.*
- void **push** (const T &t)  
*Places a new Object at the Tail of the queue.*
- void **enqueueFront** (const T &t)  
*Places a new Object at the front of the queue.*
- T **pop** ()  
*Removes and returns the element that is at the Head of the queue.*
- size\_t **size** () const  
*Gets the Number of elements currently in the **Queue** (p. 2671).*
- bool **empty** () const  
*Checks if this **Queue** (p. 2671) is currently empty.*

- virtual std::vector< T > **toArray** () const
- void **reverse** (StlQueue< T > &target) const  
*Reverses the order of the contents of this queue and stores them in the target queue.*
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*
- T & **getSafeValue** ()  
*Fetch a reference to the safe value this object will return when there is nothing to fetch from the queue.*

### 6.648.1 Detailed Description

template<typename T> class decaf::util::StlQueue< T >

The **Queue** (p. 2671) class accepts messages with an psuh(m) command where m is the message to be queued. It destructively returns the message with **pop()** (p. 3047). **pop()** (p. 3047) returns messages in the order they were enqueued.



**Queue** (p.2671) is implemented with an instance of the STL queue object. The interface is essentially the same as that of the STL queue except that the pop method actually reaturns a reference to the element popped. This frees the app from having to call the **front** method before calling pop.

```
Queue<string> sq; // make a queue to hold string messages sq.push(s); // enqueues a message  
m string s = sq.pop(); // dequeues a message
```

= DESIGN CONSIDERATIONS

The **Queue** (p.2671) class inherits from the Synchronizable interface and provides methods for locking and unlocking this queue as well as waiting on this queue. In a multi-threaded app this can allow for multiple threads to be reading from and writing to the same **Queue** (p.2671).

Clients should consider that in a multiple threaded app it is possible that items could be placed on the queue faster than you are taking them off, so protection should be placed in your polling loop to ensure that you don't get stuck there.

## 6.648.2 Constructor & Destructor Documentation

**6.648.2.1** `template<typename T> decaf::util::StlQueue< T >::StlQueue ()`  
[inline]

**6.648.2.2** `template<typename T> virtual decaf::util::StlQueue< T >::~StlQueue ()`  
[inline, virtual]

## 6.648.3 Member Function Documentation

**6.648.3.1** `template<typename T> const T& decaf::util::StlQueue< T >::back ()`  
const [inline]

Returns a Reference to the element at the tail of the queue.

**Returns:**

reference to a queue type object or (safe)

**6.648.3.2** `template<typename T> T& decaf::util::StlQueue< T >::back ()` [inline]

Returns a Reference to the element at the tail of the queue.

**Returns:**

reference to a queue type object or (safe)

**6.648.3.3** `template<typename T> void decaf::util::StlQueue< T >::clear ()`  
[inline]

Empties this queue.

**6.648.3.4** `template<typename T> bool decaf::util::StlQueue< T >::empty () const`  
[inline]

Checks if this **Queue** (p.2671) is currently empty.

**Returns:**

boolean indicating queue emptiness

**6.648.3.5** `template<typename T> void decaf::util::StlQueue< T >::enqueueFront (const T & t) [inline]`

Places a new Object at the front of the queue.

**Parameters:**

*t* - **Queue** (p. 2671) Object Type reference.

**6.648.3.6** `template<typename T> const T& decaf::util::StlQueue< T >::front () const [inline]`

Returns a Reference to the element at the head of the queue.

**Returns:**

reference to a queue type object or (safe)

**6.648.3.7** `template<typename T> T& decaf::util::StlQueue< T >::front () [inline]`

Returns a Reference to the element at the head of the queue.

**Returns:**

reference to a queue type object or (safe)

**6.648.3.8** `template<typename T> T& decaf::util::StlQueue< T >::getSafeValue () [inline]`

Fetch a reference to the safe value this object will return when there is nothing to fetch from the queue.

**Returns:**

Reference to this Queues safe object

Referenced by `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::back()`, `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::front()`, and `decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > >::pop()`.

**6.648.3.9** `template<typename T> Iterator<T>* decaf::util::StlQueue< T >::iterator () [inline]`

Gets an **Iterator** (p. 1832) over this **Queue** (p. 2671).

**Returns:**

new iterator pointer that is owned by the caller.

**6.648.3.10** `template<typename T> virtual void decaf::util::StlQueue< T >::lock ()  
throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Locks the object.

**Exceptions:**

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.648.3.11** `template<typename T> virtual void decaf::util::StlQueue< T  
>::notify () throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

**6.648.3.12** `template<typename T> virtual void decaf::util::StlQueue< T  
>::notifyAll () throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException ) [inline,  
virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3125).

**6.648.3.13** `template<typename T> T decaf::util::StlQueue< T >::pop () [inline]`

Removes and returns the element that is at the Head of the queue.

**Returns:**

reference to a queue type object or (safe)

**6.648.3.14** `template<typename T> void decaf::util::StlQueue< T >::push (const T & t) [inline]`

Places a new Object at the Tail of the queue.

**Parameters:**

*t* - **Queue** (p. 2671) Object Type reference.

**6.648.3.15** `template<typename T> void decaf::util::StlQueue< T >::reverse (StlQueue< T > & target) const [inline]`

Reverses the order of the contents of this queue and stores them in the target queue.

**Parameters:**

*target* - The target queue that will receive the contents of this queue in reverse order.

**6.648.3.16** `template<typename T> size_t decaf::util::StlQueue< T >::size () const [inline]`

Gets the Number of elements currently in the **Queue** (p. 2671).

**Returns:**

**Queue** (p. 2671) Size

**6.648.3.17** `template<typename T> virtual std::vector<T> decaf::util::StlQueue< T >::toArray () const [inline, virtual]`

**Returns:**

the all values in this queue as a std::vector.

**6.648.3.18** `template<typename T> virtual bool decaf::util::StlQueue< T >::tryLock () throw ( decaf::lang::exceptions::RuntimeException ) [inline, virtual]`

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

**6.648.3.19** `template<typename T> virtual void decaf::util::StlQueue< T >::unlock  
( ) throw ( decaf::lang::exceptions::RuntimeException ) [inline,  
virtual]`

Unlocks the object.

#### Exceptions:

*RuntimeException* if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

**6.648.3.20** `template<typename T> virtual void decaf::util::StlQueue<  
T >::wait (long long millisecs, int nanos) throw  
( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

#### Exceptions:

*IllegalArgumentException* if an error occurs or the nanos argument is not in the range of [0-999999]

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.648.3.21** `template<typename T> virtual void decaf::util::StlQueue< T >::wait  
(long long millisecs) throw ( decaf::lang::exceptions::RuntimeException,  
decaf::lang::exceptions::IllegalMonitorStateException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

**Parameters:**

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

```
6.648.3.22  template<typename T> virtual void decaf::util::StlQueue< T
>::wait () throw ( decaf::lang::exceptions::RuntimeException,
decaf::lang::exceptions::IllegalMonitorStateException,
decaf::lang::exceptions::InterruptedException ) [inline, virtual]
```

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

**Exceptions:**

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- src/main/decaf/util/StlQueue.h

## 6.649 decaf::util::StlSet< E > Class Template Reference

**Set** (p. 2905) template that wraps around a `std::set` to provide a more user-friendly interface and to provide common functions that do not exist in `std::set`.

#include <src/main/decaf/util/StlSet.h> Inheritance diagram for `decaf::util::StlSet< E >`:

### Data Structures

- class **ConstSetIterator**
- class **SetIterator**

### Public Member Functions

- **StlSet** ()  
*Default constructor - does nothing.*
- **StlSet** (const **StlSet** &source)  
*Copy constructor - copies the content of the given set into this one.*
- **StlSet** (const **Collection**< E > &source)  
*Copy constructor - copies the content of the given set into this one.*
- virtual ~**StlSet** ()
- **Iterator**< E > \* **iterator** ()  
**Returns:**  
*an iterator over a set of elements of type T.*
- **Iterator**< E > \* **iterator** () const
- virtual bool **equals** (const **StlSet** &source) const
- virtual void **copy** (const **StlSet** &source)
- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )  
*Removes all of the elements from this collection (optional operation).  
The collection will be empty after this method returns.  
This implementation iterates over this collection, removing each element using the **Iterator.remove** (p. 1833) operation. Most implementations will probably choose to override this method for efficiency.  
Note that this implementation will throw an **UnsupportedOperationException** if the iterator returned by this collection's iterator method does not implement the remove method and this collection is non-empty.*  
**Exceptions:**  
***UnsupportedOperationException** if the clear operation is not supported by this collection*
- virtual bool **contains** (const E &value) const throw ( lang::Exception )

Returns true if this collection contains the specified element.

This implementation iterates over the elements in the collection, checking each element in turn for equality with the specified element.

**Parameters:**

*value* - the value whose presence is to be queried for in this **Collection** (p. 1054).

**Returns:**

true if the value is contained in this collection

**Exceptions:**

**Exception** if an error occurs,

- virtual bool **isEmpty** () const
- virtual std::size\_t **size** () const
- virtual bool **add** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException )

Returns true if this collection changed as a result of the call.

(Returns false if this collection does not permit duplicates and already contains the specified element.)

Collections that support this operation may place limitations on what elements may be added to this collection. In particular, some collections will refuse to add null elements, and others will impose restrictions on the type of elements that may be added. **Collection** (p. 1054) classes should clearly specify in their documentation any restrictions on what elements may be added.

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

For non-pointer values, i.e. class instances or string's the object will be copied into the collection, thus the object must support being copied, must not hide the copy constructor and assignment operator.

**Parameters:**

*value* - reference to the element to add.

**Returns:**

true if the element was added

**Exceptions:**

**UnsupportedOperationException**

**IllegalArgumentException**

**IllegalStateException** if the element cannot be added at this time due to insertion restrictions

- virtual bool **remove** (const E &value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )

Removes a single instance of the specified element from this collection, if it is present (optional operation).

More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an **UnsupportedOperationException** if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

**Parameters:**

*value* - element to be removed from this collection, if present

**Returns:**

true if an element was removed as a result of this call



**Exceptions:**

*UnsupportedOperationException* if the remove operation is not supported by this collection.  
*IllegalArgumentException* If the value is not a valid entry for this *Collection* (p. 1054).

## 6.649.1 Detailed Description

`template<typename E> class decaf::util::StlSet< E >`

**Set** (p. 2905) template that wraps around a `std::set` to provide a more user-friendly interface and to provide common functions that do not exist in `std::set`.

## 6.649.2 Constructor & Destructor Documentation

**6.649.2.1** `template<typename E> decaf::util::StlSet< E >::StlSet () [inline]`

Default constructor - does nothing.

**6.649.2.2** `template<typename E> decaf::util::StlSet< E >::StlSet (const StlSet< E > & source) [inline]`

Copy constructor - copies the content of the given set into this one.

**Parameters:**

*source* The source set.

**6.649.2.3** `template<typename E> decaf::util::StlSet< E >::StlSet (const Collection< E > & source) [inline]`

Copy constructor - copies the content of the given set into this one.

**Parameters:**

*source* The source set.

**6.649.2.4** `template<typename E> virtual decaf::util::StlSet< E >::~~StlSet () [inline, virtual]`

## 6.649.3 Member Function Documentation

**6.649.3.1** `template<typename E> virtual bool decaf::util::StlSet< E >::add (const E & value) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException, lang::exceptions::IllegalStateException ) [inline, virtual]`

Returns true if this collection changed as a result of the call.

(Returns false if this collection does not permit duplicates and already contains the specified element.)

Collections that support this operation may place limitations on what elements may be added to this collection. In particular, some collections will refuse to add null elements, and others will impose restrictions on the type of elements that may be added. **Collection** (p.1054) classes should clearly specify in their documentation any restrictions on what elements may be added.

If a collection refuses to add a particular element for any reason other than that it already contains the element, it must throw an exception (rather than returning false). This preserves the invariant that a collection always contains the specified element after this call returns.

For non-pointer values, i.e. class instances or string's the object will be copied into the collection, thus the object must support being copied, must not hide the copy constructor and assignment operator.

#### Parameters:

*value* - reference to the element to add.

#### Returns:

true if the element was added

#### Exceptions:

*UnsupportedOperationException*

*IllegalArgumentException*

*IllegalStateException* if the element cannot be added at this time due to insertion restrictions

Implements **decaf::util::Collection< E >** (p.1056).

```
6.649.3.2  template<typename E> virtual void decaf::util::StlSet< E >::clear ()
           throw ( lang::exceptions::UnsupportedOperationException ) [inline,
           virtual]
```

Removes all of the elements from this collection (optional operation).

The collection will be empty after this method returns.

This implementation iterates over this collection, removing each element using the **Iterator.remove** (p.1833) operation. Most implementations will probably choose to override this method for efficiency.

Note that this implementation will throw an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the remove method and this collection is non-empty.

#### Exceptions:

*UnsupportedOperationException* if the clear operation is not supported by this collection

Reimplemented from **decaf::util::AbstractCollection< E >** (p.151).

**6.649.3.3** `template<typename E> virtual bool decaf::util::StlSet< E >::contains (const E & value) const throw ( lang::Exception ) [inline, virtual]`

Returns true if this collection contains the specified element.

This implementation iterates over the elements in the collection, checking each element in turn for equality with the specified element.

**Parameters:**

*value* - the value whose presence is to be queried for in this **Collection** (p.1054).

**Returns:**

true if the value is contained in this collection

**Exceptions:**

*Exception* if an error occurs,

Reimplemented from **decaf::util::AbstractCollection< E >** (p.152).

**6.649.3.4** `template<typename E> virtual void decaf::util::StlSet< E >::copy (const StlSet< E > & source) [inline, virtual]`

Referenced by `decaf::util::StlSet< ActiveMQSession * >::StlSet()`.

**6.649.3.5** `template<typename E> virtual bool decaf::util::StlSet< E >::equals (const StlSet< E > & source) const [inline, virtual]`

**6.649.3.6** `template<typename E> virtual bool decaf::util::StlSet< E >::isEmpty () const [inline, virtual]`

**Returns:**

if the set contains any element or not, TRUE or FALSE

Reimplemented from **decaf::util::AbstractCollection< E >** (p.153).

**6.649.3.7** `template<typename E> Iterator<E>* decaf::util::StlSet< E >::iterator () const [inline, virtual]`

Implements **decaf::lang::Iterable< E >** (p.1830).

**6.649.3.8** `template<typename E> Iterator<E>* decaf::util::StlSet< E >::iterator () [inline, virtual]`

**Returns:**

an iterator over a set of elements of type T.

Implements **decaf::lang::Iterable< E >** (p.1830).

```

6.649.3.9  template<typename E> virtual bool decaf::util::StlSet<
            E >::remove (const E & value) throw (
            lang::exceptions::UnsupportedOperationException,
            lang::exceptions::IllegalArgumentException ) [inline, virtual]

```

Removes a single instance of the specified element from this collection, if it is present (optional operation).

More formally, removes the first element *e* such that *e* == *o*, if this collection contains one or more such elements. Returns true if this collection contained the specified element (or equivalently, if this collection changed as a result of the call).

This implementation iterates over the collection looking for the specified element. If it finds the element, it removes the element from the collection using the iterator's remove method.

Note that this implementation throws an `UnsupportedOperationException` if the iterator returned by this collection's iterator method does not implement the remove method and this collection contains the specified object.

#### Parameters:

*value* - element to be removed from this collection, if present

#### Returns:

true if an element was removed as a result of this call

#### Exceptions:

*UnsupportedOperationException* if the remove operation is not supported by this collection.

*IllegalArgumentException* If the value is not a valid entry for this **Collection** (p. 1054).

Reimplemented from `decaf::util::AbstractCollection< E >` (p. 155).

```

6.649.3.10  template<typename E> virtual std::size_t decaf::util::StlSet< E >::size
            () const [inline, virtual]

```

#### Returns:

The number of elements in this set.

Implements `decaf::util::Collection< E >` (p. 1062).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/StlSet.h`

## 6.650 activemq::wireformat::stomp::StompCommandConstants Class Reference

```
#include <src/main/activemq/wireformat/stomp/StompCommandConstants.h>
```

### Static Public Attributes

- static const std::string **CONNECT**
- static const std::string **CONNECTED**
- static const std::string **DISCONNECT**
- static const std::string **SUBSCRIBE**
- static const std::string **UNSUBSCRIBE**
- static const std::string **MESSAGE**
- static const std::string **SEND**
- static const std::string **BEGIN**
- static const std::string **COMMIT**
- static const std::string **ABORT**
- static const std::string **ACK**
- static const std::string **ERROR\_CMD**
- static const std::string **RECEIPT**
- static const std::string **HEADER\_DESTINATION**
- static const std::string **HEADER\_TRANSACTIONID**
- static const std::string **HEADER\_CONTENTLENGTH**
- static const std::string **HEADER\_SESSIONID**
- static const std::string **HEADER\_RECEIPT\_REQUIRED**
- static const std::string **HEADER\_RECEIPTID**
- static const std::string **HEADER\_MESSAGEID**
- static const std::string **HEADER\_ACK**
- static const std::string **HEADER\_LOGIN**
- static const std::string **HEADER\_PASSWORD**
- static const std::string **HEADER\_CLIENT\_ID**
- static const std::string **HEADER\_MESSAGE**
- static const std::string **HEADER\_CORRELATIONID**
- static const std::string **HEADER\_REQUESTID**
- static const std::string **HEADER\_RESPONSEID**
- static const std::string **HEADER\_EXPIRES**
- static const std::string **HEADER\_PERSISTENT**
- static const std::string **HEADER\_REPLYTO**
- static const std::string **HEADER\_TYPE**
- static const std::string **HEADER\_DISPATCH\_ASYNC**
- static const std::string **HEADER\_EXCLUSIVE**
- static const std::string **HEADER\_MAXPENDINGMSGLIMIT**
- static const std::string **HEADER\_NOLOCAL**
- static const std::string **HEADER\_PREFETCHSIZE**
- static const std::string **HEADER\_JMSPRIORITY**
- static const std::string **HEADER\_CONSUMERPRIORITY**
- static const std::string **HEADER\_RETROACTIVE**
- static const std::string **HEADER\_SUBSCRIPTIONNAME**
- static const std::string **HEADER\_OLDSUBSCRIPTIONNAME**

- static const std::string **HEADER\_TIMESTAMP**
- static const std::string **HEADER\_REDELIVERED**
- static const std::string **HEADER\_REDELIVERYCOUNT**
- static const std::string **HEADER\_SELECTOR**
- static const std::string **HEADER\_ID**
- static const std::string **HEADER\_SUBSCRIPTION**
- static const std::string **HEADER\_TRANSFORMATION**
- static const std::string **HEADER\_TRANSFORMATION\_ERROR**
- static const std::string **ACK\_CLIENT**
- static const std::string **ACK\_AUTO**
- static const std::string **ACK\_INDIVIDUAL**
- static const std::string **TEXT**
- static const std::string **BYTES**
- static const std::string **QUEUE\_PREFIX**
- static const std::string **TOPIC\_PREFIX**
- static const std::string **TEMPQUEUE\_PREFIX**
- static const std::string **TEMPTOPIC\_PREFIX**

## 6.650.1 Field Documentation

- 6.650.1.1 `const std::string activemq::wireformat::stomp::StompCommandConstants::ABORT`  
[static]
- 6.650.1.2 `const std::string activemq::wireformat::stomp::StompCommandConstants::ACK`  
[static]
- 6.650.1.3 `const std::string activemq::wireformat::stomp::StompCommandConstants::ACK_AUTO`  
[static]
- 6.650.1.4 `const std::string activemq::wireformat::stomp::StompCommandConstants::ACK_CLIENT` [static]
- 6.650.1.5 `const std::string activemq::wireformat::stomp::StompCommandConstants::ACK_INDIVIDUAL` [static]
- 6.650.1.6 `const std::string activemq::wireformat::stomp::StompCommandConstants::BEGIN`  
[static]
- 6.650.1.7 `const std::string activemq::wireformat::stomp::StompCommandConstants::BYTES`  
[static]
- 6.650.1.8 `const std::string activemq::wireformat::stomp::StompCommandConstants::COMMIT`  
[static]
- 6.650.1.9 `const std::string activemq::wireformat::stomp::StompCommandConstants::CONNECT`  
[static]
- 6.650.1.10 `const std::string activemq::wireformat::stomp::StompCommandConstants::CONNECTED`  
[static]
- 6.650.1.11 `const std::string activemq::wireformat::stomp::StompCommandConstants::DISCONNECT`  
[static]
- 6.650.1.12 `const std::string activemq::wireformat::stomp::StompCommandConstants::ERROR_CMD` [static]
- 6.650.1.13 `const std::string activemq::wireformat::stomp::StompCommandConstants::HEADER_ACK` [static]
- 6.650.1.14 `const std::string activemq::wireformat::stomp::StompCommandConstants::HEADER_CLIENT_ID` [static]
- 6.650.1.15 `const std::string activemq::wireformat::stomp::StompCommandConstants::HEADER_CONSUMERPRIORITY` [static]

- `src/main/activemq/wireformat/stomp/StompCommandConstants.h`



## 6.651 activemq::wireformat::stomp::StompFrame Class Reference

A Stomp-level message frame that encloses all messages to and from the broker.

```
#include <src/main/activemq/wireformat/stomp/StompFrame.h>
```

### Public Member Functions

- **StompFrame** ()  
*Default constructor.*
- virtual **~StompFrame** ()  
*Destruction.*
- **StompFrame \* clone** () const  
*Clone this message exactly, returns a new instance that the caller is required to delete.*
- void **copy** (const **StompFrame** \*src)  
*Copies the contents of the passed Frame to this one.*
- void **setCommand** (const std::string &cmd)  
*Sets the command for this stomp frame.*
- const std::string & **getCommand** () const  
*Accessor for this frame's command field.*
- bool **hasProperty** (const std::string &name) const  
*Checks if the given property is present in the Frame.*
- std::string **getProperty** (const std::string &name, const std::string &fallback="") const  
*Gets a property from this Frame's properties and returns it, or the default value given.*
- std::string **removeProperty** (const std::string &name)  
*Gets and remove the property specified, if the property is not set, this method returns the empty string.*
- void **setProperty** (const std::string &name, const std::string &value)  
*Sets the property given to the value specified in this Frame's Properties.*
- **decaf::util::Properties** & **getProperties** ()  
*Gets access to the header properties for this frame.*
- const **decaf::util::Properties** & **getProperties** () const
- const std::vector< unsigned char > & **getBody** () const  
*Accessor for the body data of this frame.*
- std::vector< unsigned char > & **getBody** ()  
*Non-const version of the body accessor.*

- `std::size_t getBodyLength () const`  
*Return the number of bytes contained in this frames body.*
- `void setBody (const unsigned char *bytes, std::size_t numBytes)`  
*Sets the body data of this frame as a byte sequence.*
- `void toStream (decaf::io::DataOutputStream *stream) const throw ( decaf::io::IOException )`  
*Writes this Frame to an OuputStream in the Stomp Wire Format.*
- `void fromStream (decaf::io::DataInputStream *stream) throw ( decaf::io::IOException )`  
*Reads a Stop Frame from a DataInputStream in the Stomp Wire format.*

### 6.651.1 Detailed Description

A Stomp-level message frame that encloses all messages to and from the broker.

### 6.651.2 Constructor & Destructor Documentation

#### 6.651.2.1 `activemq::wireformat::stomp::StompFrame::StompFrame () [inline]`

Default constructor.

#### 6.651.2.2 `virtual activemq::wireformat::stomp::StompFrame::~~StompFrame () [inline, virtual]`

Destruction.

### 6.651.3 Member Function Documentation

#### 6.651.3.1 `StompFrame* activemq::wireformat::stomp::StompFrame::clone () const`

Clone this message exactly, returns a new instance that the caller is required to delete.

**Returns:**

new copy of this message

#### 6.651.3.2 `void activemq::wireformat::stomp::StompFrame::copy (const StompFrame * src)`

Copies the contents of the passed Frame to this one.

**Parameters:**

*src* - Frame to copy

**6.651.3.3** void activemq::wireformat::stomp::StompFrame::fromStream  
(decaf::io::DataInputStream \* *stream*) throw ( decaf::io::IOException )

Reads a Stop Frame from a DataInputStream in the Stomp Wire format.

**Parameters:**

*stream* - The stream to read the Frame from.

**Exceptions:**

*IOException* if an error occurs while writing the Frame.

**6.651.3.4** std::vector<unsigned char>& activemq::wireformat::stomp::StompFrame::getBody ()  
[inline]

Non-const version of the body accessor.

**6.651.3.5** const std::vector<unsigned char>& activemq::wireformat::stomp::StompFrame::getBody () const  
[inline]

Accessor for the body data of this frame.

**Returns:**

char pointer to body data

**6.651.3.6** std::size\_t activemq::wireformat::stomp::StompFrame::getBodyLength ()  
const [inline]

Return the number of bytes contained in this frames body.

**Returns:**

Body bytes length.

**6.651.3.7** const std::string& activemq::wireformat::stomp::StompFrame::getCommand ()  
const [inline]

Accessor for this frame's command field.

**6.651.3.8** const decaf::util::Properties& activemq::wireformat::stomp::StompFrame::getProperties ()  
const [inline]

**6.651.3.9** decaf::util::Properties& activemq::wireformat::stomp::StompFrame::getProperties ()  
[inline]

Gets access to the header properties for this frame.

**Returns:**

the Properties object owned by this Frame

**6.651.3.10** `std::string activemq::wireformat::stomp::StompFrame::getProperty  
(const std::string & name, const std::string & fallback = "") const` `[inline]`

Gets a property from this Frame's properties and returns it, or the default value given.

**Parameters:**

*name* - The name of the property to lookup

*fallback* - The default value to return if this value isn't set

**Returns:**

string value of the property asked for.

**6.651.3.11** `bool activemq::wireformat::stomp::StompFrame::hasProperty (const  
std::string & name) const` `[inline]`

Checks if the given property is present in the Frame.

**Parameters:**

*name* - The name of the property to check for.

**6.651.3.12** `std::string activemq::wireformat::stomp::StompFrame::removeProperty  
(const std::string & name)` `[inline]`

Gets and remove the property specified, if the property is not set, this method returns the empty string.

**Parameters:**

*name* - the Name of the property to get and return.

**6.651.3.13** `void activemq::wireformat::stomp::StompFrame::setBody (const  
unsigned char * bytes, std::size_t numBytes)`

Sets the body data of this frame as a byte sequence.

**Parameters:**

*bytes* The byte buffer to be set in the body.

*numBytes* The number of bytes in the buffer.

**6.651.3.14** void activemq::wireformat::stomp::StompFrame::setCommand (const std::string & *cmd*) [inline]

Sets the command for this stomp frame.

**Parameters:**

*cmd* command The command to be set.

**6.651.3.15** void activemq::wireformat::stomp::StompFrame::setProperty (const std::string & *name*, const std::string & *value*) [inline]

Sets the property given to the value specified in this Frame's Properties.

**Parameters:**

*name* - Name of the property.

*value* - Value to set the property to.

**6.651.3.16** void activemq::wireformat::stomp::StompFrame::toStream (decaf::io::DataOutputStream \* *stream*) const throw ( decaf::io::IOException )

Writes this Frame to an OuputStream in the Stomp Wire Format.

**Parameters:**

*stream* - The stream to write the Frame to.

**Exceptions:**

*IOException* if an error occurs while reading the Frame.

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/stomp/**StompFrame.h**

## 6.652 activemq::wireformat::stomp::StompHelper Class Reference

Utility Methods used when marshaling to and from StompFrame's.

```
#include <src/main/activemq/wireformat/stomp/StompHelper.h>
```

### Public Member Functions

- **StompHelper** ()
- virtual **~StompHelper** ()
- void **convertProperties** (const **Pointer**< **StompFrame** > &frame, const **Pointer**< **Message** > &message)
 

*Converts the Headers in a Stomp Frame into Headers in the given Message Command.*
- void **convertProperties** (const **Pointer**< **Message** > &message, const **Pointer**< **StompFrame** > &frame)
 

*Converts the Properties in a Message Command to Valid Headers and Properties in the StompFrame (p. 3061).*
- **Pointer**< **ActiveMQDestination** > **convertDestination** (const std::string &destination)
 

*Converts from a Stomp Destination to an ActiveMQDestination.*
- std::string **convertDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
 

*Converts from a ActiveMQDestination to a Stomp Destination Name.*
- std::string **convertMessageId** (const **Pointer**< **MessageId** > &messageId)
 

*Converts a MessageId instance to a Stomp MessageId String.*
- **Pointer**< **MessageId** > **convertMessageId** (const std::string &messageId)
 

*Converts a Stomp MessageId string to a MessageId.*
- std::string **convertConsumerId** (const **Pointer**< **ConsumerId** > &consumerId)
 

*Converts a ConsumerId instance to a Stomp ConsumerId String.*
- **Pointer**< **ConsumerId** > **convertConsumerId** (const std::string &consumerId)
 

*Converts a Stomp ConsumerId string to a ConsumerId.*
- std::string **convertProducerId** (const **Pointer**< **ProducerId** > &producerId)
 

*Converts a ProducerId instance to a Stomp ProducerId String.*
- **Pointer**< **ProducerId** > **convertProducerId** (const std::string &producerId)
 

*Converts a Stomp ProducerId string to a ProducerId.*
- std::string **convertTransactionId** (const **Pointer**< **TransactionId** > &transactionId)
 

*Converts a TransactionId instance to a Stomp TransactionId String.*
- **Pointer**< **TransactionId** > **convertTransactionId** (const std::string &transactionId)
 

*Converts a Stomp TransactionId string to a TransactionId.*

### 6.652.1 Detailed Description

Utility Methods used when marshaling to and from StompFrame's.

Since:

3.0

### 6.652.2 Constructor & Destructor Documentation

**6.652.2.1** `activemq::wireformat::stomp::StompHelper::StompHelper () [inline]`

**6.652.2.2** `virtual activemq::wireformat::stomp::StompHelper::~~StompHelper () [inline, virtual]`

### 6.652.3 Member Function Documentation

**6.652.3.1** `Pointer<ConsumerId> activemq::wireformat::stomp::StompHelper::convertConsumerId (const std::string & consumerId)`

Converts a Stomp ConsumerId string to a ConsumerId.

**Parameters:**

*consumerId* - the String Consumer Id to convert.

**Returns:**

Pointer to a new ConsumerId.

**6.652.3.2** `std::string activemq::wireformat::stomp::StompHelper::convertConsumerId (const Pointer< ConsumerId > & consumerId)`

Converts a ConsumerId instance to a Stomp ConsumerId String.

**Parameters:**

*consumerId* - the Consumer instance to convert.

**Returns:**

a Stomp Consumer Id String.

**6.652.3.3** `std::string activemq::wireformat::stomp::StompHelper::convertDestination (const Pointer< ActiveMQDestination > & destination)`

Converts from a ActiveMQDestination to a Stomp Destination Name.

**Parameters:**

*destination* - The ActiveMQDestination to Convert

**Returns:**

the Stomp String name that defines the destination.

**6.652.3.4** `Pointer<ActiveMQDestination> activemq::wireformat::stomp::StompHelper::convertDestination (const std::string & destination)`

Converts from a Stomp Destination to an ActiveMQDestination.

**Parameters:**

*destination* - The Stomp Destination name string.

**Returns:**

Pointer to a new ActiveMQDestination.

**6.652.3.5** `Pointer<MessageId> activemq::wireformat::stomp::StompHelper::convertMessageId (const std::string & messageId)`

Converts a Stomp MessageId string to a MessageId.

**Parameters:**

*messageId* - the String message Id to convert.

**Returns:**

Pointer to a new MessageId.

**6.652.3.6** `std::string activemq::wireformat::stomp::StompHelper::convertMessageId (const Pointer< MessageId > & messageId)`

Converts a MessageId instance to a Stomp MessageId String.

**Parameters:**

*messageId* - the MessageId instance to convert.

**Returns:**

a Stomp Message Id String.

**6.652.3.7** `Pointer<ProducerId> activemq::wireformat::stomp::StompHelper::convertProducerId (const std::string & producerId)`

Converts a Stomp ProducerId string to a ProducerId.



**Parameters:**

*producerId* - the String Producer Id to convert.

**Returns:**

Pointer to a new ProducerId.

### 6.652.3.8 `std::string activemq::wireformat::stomp::StompHelper::convertProducerId (const Pointer< ProducerId > & producerId)`

Converts a ProducerId instance to a Stomp ProducerId String.

**Parameters:**

*producerId* - the Producer instance to convert.

**Returns:**

a Stomp Producer Id String.

### 6.652.3.9 `void activemq::wireformat::stomp::StompHelper::convertProperties (const Pointer< Message > & message, const Pointer< StompFrame > & frame)`

Converts the Properties in a Message Command to Valid Headers and Properties in the **StompFrame** (p. 3061).

**Parameters:**

*message* - The message to move the Headers to.

*frame* - The frame to extract headers from.

### 6.652.3.10 `void activemq::wireformat::stomp::StompHelper::convertProperties (const Pointer< StompFrame > & frame, const Pointer< Message > & message)`

Converts the Headers in a Stomp Frame into Headers in the given Message Command.

**Parameters:**

*frame* - The frame to extract headers from.

*message* - The message to move the Headers to.

### 6.652.3.11 `Pointer<TransactionId> activemq::wireformat::stomp::StompHelper::convertTransactionId (const std::string & transactionId)`

Converts a Stomp TransactionId string to a TransactionId.

**Parameters:**

*transactionId* - the String Transaction Id to convert.

**Returns:**

Pointer to a new TransactionId.

**6.652.3.12** `std::string activemq::wireformat::stomp::StompHelper::convertTransactionId (const Pointer< TransactionId > & transactionId)`

Converts a TransactionId instance to a Stomp TransactionId String.

**Parameters:**

*transactionId* - the Transaction instance to convert.

**Returns:**

a Stomp Transaction Id String.

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/stomp/StompHelper.h`

## 6.653 activemq::wireformat::stomp::StompWireFormat Class Reference

#include <src/main/activemq/wireformat/stomp/StompWireFormat.h> Inheritance diagram for activemq::wireformat::stomp::StompWireFormat:

### Public Member Functions

- **StompWireFormat** ()
- virtual **~StompWireFormat** ()
- virtual void **marshal** (const **Pointer**< **commands::Command** > &command, const **activemq::transport::Transport** \*transport, **decaf::io::DataOutputStream** \*out) throw ( **decaf::io::IOException** )

*Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.*

- virtual **Pointer**< **commands::Command** > **unmarshal** (const **activemq::transport::Transport** \*transport, **decaf::io::DataInputStream** \*in) throw ( **decaf::io::IOException** )

*Stream based un-marshaling, blocks on reads on the input stream until a complete command has been read and unmarshaled into the correct form.*

- virtual void **setVersion** (int version **AMQCPP\_UNUSED**)

*Set the Version.*

- virtual int **getVersion** () const

*Get the Version.*

- virtual bool **inReceive** () const

*Is there a Message being unmarshaled?*

- virtual bool **hasNegotiator** () const

*Returns true if this **WireFormat** (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.*

- virtual **Pointer**< **transport::Transport** > **createNegotiator** (const **Pointer**< **transport::Transport** > &transport) throw ( **decaf::lang::exceptions::UnsupportedOperationException** )

*If the Transport Provides a Negotiator this method will create and return a news instance of the Negotiator.*

### 6.653.1 Constructor & Destructor Documentation

**6.653.1.1** `activemq::wireformat::stomp::StompWireFormat::StompWireFormat ()`

**6.653.1.2** `virtual  
activemq::wireformat::stomp::StompWireFormat::~~StompWireFormat ()  
[virtual]`

### 6.653.2 Member Function Documentation

**6.653.2.1** `virtual Pointer<transport::Transport> ac-  
tivemq::wireformat::stomp::StompWireFormat::createNegotiator  
(const Pointer< transport::Transport > & transport) throw (  
decaf::lang::exceptions::UnsupportedOperationException ) [virtual]`

If the Transport Provides a Negotiator this method will create and return a news instance of the Negotiator.

**Returns:**

new instance of a **WireFormatNegotiator** (p. 3399).

**Exceptions:**

*UnsupportedOperationException* if the **WireFormat** (p. 3363) doesn't have a Negotiator.

Implements **activemq::wireformat::WireFormat** (p. 3364).

**6.653.2.2** `virtual int activemq::wireformat::stomp::StompWireFormat::getVersion  
() const [inline, virtual]`

Get the Version.

**Returns:**

the version of the wire format

Implements **activemq::wireformat::WireFormat** (p. 3364).

**6.653.2.3** `virtual bool ac-  
tivemq::wireformat::stomp::StompWireFormat::hasNegotiator () const  
[inline, virtual]`

Returns true if this **WireFormat** (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.

**Returns:**

true if the **WireFormat** (p. 3363) provides a Negotiator.

Implements **activemq::wireformat::WireFormat** (p. 3364).

#### 6.653.2.4 virtual bool activemq::wireformat::stomp::StompWireFormat::inReceive ( ) const [inline, virtual]

Is there a Message being unmarshaled?

##### Returns:

true while in the doUnmarshal method.

Implements **activemq::wireformat::WireFormat** (p. 3365).

#### 6.653.2.5 virtual void activemq::wireformat::stomp::StompWireFormat::marshal (const Pointer< commands::Command > & *command*, const activemq::transport::Transport \* *transport*, decaf::io::DataOutputStream \* *out*) throw ( decaf::io::IOException ) [virtual]

Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.

##### Parameters:

*command* The Command to Marshal to the output stream.

*transport* The Transport that initiated this marshal call.

*out* The output stream to write the command to.

##### Exceptions:

*IOException*

Implements **activemq::wireformat::WireFormat** (p. 3365).

#### 6.653.2.6 virtual void activemq::wireformat::stomp::StompWireFormat::setVersion (int version *AMQCPP\_UNUSED*) [inline, virtual]

Set the Version.

##### Parameters:

*the* version of the wire format

Implements **activemq::wireformat::WireFormat** (p. 3365).

#### 6.653.2.7 virtual Pointer<commands::Command> ac- tivemq::wireformat::stomp::StompWireFormat::unmarshal (const activemq::transport::Transport \* *transport*, decaf::io::DataInputStream \* *in*) throw ( decaf::io::IOException ) [virtual]

Stream based un-marshaling, blocks on reads on the input stream until a complete command has been read and unmarshaled into the correct form. Returns a Pointer to the newly unmarshaled Command.

##### Parameters:

*transport* - Pointer to the transport that is making this request.

*in* - the input stream to read the command from.

**Returns:**

the newly marshaled Command, caller owns the pointer

**Exceptions:**

*IOException*

Implements **activemq::wireformat::WireFormat** (p. 3366).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/stomp/StompWireFormat.h`

## 6.654 activemq::wireformat::stomp::StompWireFormatFactory Class Reference

Factory used to create the Stomp Wire Format instance.

#include <src/main/activemq/wireformat/stomp/StompWireFormatFactory.h> Inheritance diagram for activemq::wireformat::stomp::StompWireFormatFactory:

### Public Member Functions

- **StompWireFormatFactory** ()
- virtual **~StompWireFormatFactory** ()
- virtual **Pointer< WireFormat > createWireFormat** (const **decaf::util::Properties** &properties) throw ( **decaf::lang::exceptions::IllegalStateException** )  
*Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.*

### 6.654.1 Detailed Description

Factory used to create the Stomp Wire Format instance.

### 6.654.2 Constructor & Destructor Documentation

**6.654.2.1** **activemq::wireformat::stomp::StompWireFormatFactory::StompWireFormatFactory** () [inline]

**6.654.2.2** **virtual**  
**activemq::wireformat::stomp::StompWireFormatFactory::~~StompWireFormatFactory** () [inline, virtual]

### 6.654.3 Member Function Documentation

**6.654.3.1** **virtual Pointer<WireFormat> ac-**  
**tivemq::wireformat::stomp::StompWireFormatFactory::createWireFormat**  
 (const **decaf::util::Properties** & *properties*) throw ( **decaf::lang::exceptions::IllegalStateException** ) [virtual]

Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.

#### Parameters:

*properties* - the Properties for this **WireFormat** (p. 3363)

Implements **activemq::wireformat::WireFormatFactory** (p. 3367).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/stomp/**StompWireFormatFactory.h**

## 6.655 cms::Stoppable Class Reference

Interface for a class that implements the stop method.

#include <src/main/cms/Stoppable.h> Inheritance diagram for cms::Stoppable:

### Public Member Functions

- virtual **~Stoppable** ()
- virtual void **stop** ()=0 throw ( CMSEException )  
*Stops this service.*

#### 6.655.1 Detailed Description

Interface for a class that implements the stop method. An object that implements this interface implies that it will halt all operations that result in events being propagated to external users, internally the Object can continue to process data but not events will be generated to clients and methods that return data will not return valid results until the object is started again.

Since:

1.0

#### 6.655.2 Constructor & Destructor Documentation

**6.655.2.1** virtual cms::Stoppable::~~Stoppable () [inline, virtual]

#### 6.655.3 Member Function Documentation

**6.655.3.1** virtual void cms::Stoppable::stop () throw ( CMSEException ) [pure virtual]

Stops this service.

Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs while stopping the Service.

Implemented in **activemq::core::ActiveMQConnection** (p. 242).

The documentation for this class was generated from the following file:

- src/main/cms/**Stoppable.h**



## 6.656 decaf::util::logging::StreamHandler Class Reference

#include <src/main/decaf/util/logging/StreamHandler.h> Inheritance diagram for decaf::util::logging::StreamHandler:

### Public Member Functions

- **StreamHandler** ()  
*Create a **StreamHandler** (p. 3077), with no current output stream.*
- **StreamHandler** (io::OutputStream \*stream, Formatter \*formatter)  
*Create a **StreamHandler** (p. 3077), with no current output stream.*
- virtual ~**StreamHandler** ()
- virtual void **close** () throw ( decaf::io::IOException )  
*Close the current output stream.*
- virtual void **flush** ()  
*Flush the Handler's output, clears any buffers.*
- virtual void **publish** (const **LogRecord** &record)  
*Publish the Log Record to this **Handler** (p. 1709).*
- virtual void **isLoggable** (const **LogRecord** &record)  
*Check if this **Handler** (p. 1709) would actually log a given **LogRecord** (p. 2050).*
- virtual void **setFilter** (const **Filter** \*filter)  
*Sets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records.*
- virtual const **Filter** \* **getFilter** ()  
*Gets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records.*
- virtual void **setLevel** (**Level** level)  
***Set** (p. 2905) the log level specifying which message levels will be logged by this **Handler** (p. 1709).*
- virtual **Level** **getLevel** ()  
*Get the log level specifying which message levels will be logged by this **Handler** (p. 1709).*
- virtual void **setFormatter** (const **Formatter** \*formatter)  
*Sets the **Formatter** (p. 1699) used by this **Handler** (p. 1709).*
- virtual const **Formatter** \* **getFormatter** ()  
*Gets the **Formatter** (p. 1699) used by this **Handler** (p. 1709).*
- virtual io::OutputStream \* **getOutputStream** () const  
*Gets the output Stream that this **Handler** (p. 1709) is using.*

## 6.656.1 Constructor & Destructor Documentation

### 6.656.1.1 `decaf::util::logging::StreamHandler::StreamHandler ()` [inline]

Create a **StreamHandler** (p. 3077), with no current output stream.

### 6.656.1.2 `decaf::util::logging::StreamHandler::StreamHandler (io::OutputStream * stream, Formatter * formatter)` [inline]

Create a **StreamHandler** (p. 3077), with no current output stream.

References `decaf::util::logging::Fatal`.

### 6.656.1.3 `virtual decaf::util::logging::StreamHandler::~StreamHandler ()` [inline, virtual]

References `DECAF_CATCH_NOTHROW`, and `DECAF_CATCHALL_NOTHROW`.

## 6.656.2 Member Function Documentation

### 6.656.2.1 `virtual void decaf::util::logging::StreamHandler::close () throw (decaf::io::IOException)` [inline, virtual]

Close the current output stream. The close method will perform a flush and then close the **Handler** (p. 1709). After close has been called this **Handler** (p. 1709) should no longer be used. Method calls may either be silently ignored or may throw runtime exceptions.

#### Exceptions:

***IOException***

Implements `decaf::io::Closeable` (p. 1019).

### 6.656.2.2 `virtual void decaf::util::logging::StreamHandler::flush ()` [inline, virtual]

Flush the Handler's output, clears any buffers.

Implements `decaf::util::logging::Handler` (p. 1710).

### 6.656.2.3 `virtual const Filter* decaf::util::logging::StreamHandler::getFilter ()` [inline, virtual]

Gets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records.

#### Returns:

**Filter** (p. 1630) derived instance

Implements `decaf::util::logging::Handler` (p. 1710).

**6.656.2.4** `virtual const Formatter* decaf::util::logging::StreamHandler::getFormatter ()` [inline, virtual]

Gets the `Formatter` (p. 1699) used by this **Handler** (p. 1709).

**Returns:**

currently configured `Formatter` (p. 1699) derived instance

Implements `decaf::util::logging::Handler` (p. 1710).

**6.656.2.5** `virtual Level decaf::util::logging::StreamHandler::getLevel ()` [inline, virtual]

Get the log level specifying which message levels will be logged by this **Handler** (p. 1709).

**Returns:**

Currently set `Level` enumeration value

Implements `decaf::util::logging::Handler` (p. 1710).

**6.656.2.6** `virtual io::OutputStream* decaf::util::logging::StreamHandler::getOutputStream ()` const [inline, virtual]

Gets the output `Stream` that this **Handler** (p. 1709) is using.

**Returns:**

`OutputStream` pointer used by this handler.

**6.656.2.7** `virtual void decaf::util::logging::StreamHandler::isLoggable (const LogRecord & record)` [inline, virtual]

Check if this **Handler** (p. 1709) would actually log a given **LogRecord** (p. 2050).

**Parameters:**

*record* `LogRecord` (p. 2050) to check

Implements `decaf::util::logging::Handler` (p. 1710).

**6.656.2.8** `virtual void decaf::util::logging::StreamHandler::publish (const LogRecord & record)` [inline, virtual]

Publish the `Log Record` to this **Handler** (p. 1709).

**Parameters:**

*record* The `LogRecord` (p. 2050) to Publish

Implements `decaf::util::logging::Handler` (p. 1711).

References `DECAF_CATCH_RETHROW`, and `DECAF_CATCHALL_THROW`.

**6.656.2.9** virtual void decaf::util::logging::StreamHandler::setFilter (const Filter \* *filter*) [inline, virtual]

Sets the **Filter** (p. 1630) that this **Handler** (p. 1709) uses to filter Log Records.

**Parameters:**

*filter* Filter (p. 1630) derived instance

Implements **decaf::util::logging::Handler** (p. 1711).

**6.656.2.10** virtual void decaf::util::logging::StreamHandler::setFormatter (const Formatter \* *formatter*) [inline, virtual]

Sets the **Formatter** (p. 1699) used by this **Handler** (p. 1709).

**Parameters:**

*formatter* Formatter (p. 1699) derived instance

Implements **decaf::util::logging::Handler** (p. 1711).

**6.656.2.11** virtual void decaf::util::logging::StreamHandler::setLevel (Level *level*) [inline, virtual]

**Set** (p. 2905) the log level specifying which message levels will be logged by this **Handler** (p. 1709). The intention is to allow developers to turn on verbose logging, but to limit the messages that are sent to certain Handlers.

**Parameters:**

*level* Level enumeration value

Implements **decaf::util::logging::Handler** (p. 1711).

The documentation for this class was generated from the following file:

- src/main/decaf/util/logging/**StreamHandler.h**

## 6.657 cms::StreamMessage Class Reference

Interface for a **StreamMessage** (p. 3081).

#include <src/main/cms/StreamMessage.h> Inheritance diagram for cms::StreamMessage:

### Public Member Functions

- virtual **~StreamMessage** ()
- virtual bool **readBoolean** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Boolean from the Stream message stream.*
- virtual void **writeBoolean** (bool value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a boolean to the Stream message stream as a 1-byte value.*
- virtual unsigned char **readByte** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a Byte from the Stream message stream.*
- virtual void **writeByte** (unsigned char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte to the Stream message stream as a 1-byte value.*
- virtual std::size\_t **readBytes** (std::vector< unsigned char > &value) const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a byte array from the Stream message stream.*
- virtual void **writeBytes** (const std::vector< unsigned char > &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a byte array to the Stream message stream using the vector size as the number of bytes to write.*
- virtual std::size\_t **readBytes** (unsigned char \*buffer, std::size\_t length) const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )  
*Reads a portion of the Stream message stream.*
- virtual void **writeBytes** (const unsigned char \*value, std::size\_t offset, std::size\_t length)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Writes a portion of a byte array to the Stream message stream.*
- virtual char **readChar** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a Char from the Stream message stream.*

- virtual void **writeChar** (char value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a char to the Stream message stream as a 1-byte value.*

- virtual float **readFloat** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 32 bit float from the Stream message stream.*

- virtual void **writeFloat** (float value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a float to the Stream message stream as a 4 byte value.*

- virtual double **readDouble** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 64 bit double from the Stream message stream.*

- virtual void **writeDouble** (double value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a double to the Stream message stream as a 8 byte value.*

- virtual short **readShort** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit signed short from the Stream message stream.*

- virtual void **writeShort** (short value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed short to the Stream message stream as a 2 byte value.*

- virtual unsigned short **readUnsignedShort** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 16 bit unsigned short from the Stream message stream.*

- virtual void **writeUnsignedShort** (unsigned short value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a unsigned short to the Stream message stream as a 2 byte value.*

- virtual int **readInt** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 32 bit signed integer from the Stream message stream.*

- virtual void **writeInt** (int value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a signed int to the Stream message stream as a 4 byte value.*

- virtual long long **readLong** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads a 64 bit long from the Stream message stream.*

- virtual void **writeLong** (long long value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes a long long to the Stream message stream as a 8 byte value.*

- virtual std::string **readString** () const =0 throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException )

*Reads an ASCII String from the Stream message stream.*

- virtual void **writeString** (const std::string &value)=0 throw ( cms::MessageNotWriteableException, cms::CMSEException )

*Writes an ASCII String to the Stream message stream.*

## 6.657.1 Detailed Description

Interface for a **StreamMessage** (p. 3081). The stream Messages provides a **Message** (p. 2163) type whose body is a stream of self describing primitive types. The primitive values are read and written using accessors specific to the given types.

**StreamMessage** (p. 3081) objects support the following conversion table. The marked cases must be supported. The unmarked cases must throw a **CMSEException** (p. 1031). The string-to-primitive conversions may throw a runtime exception if the primitive's `valueOf()` method does not accept it as a valid String representation of the primitive.

A value written as the row type can be read as the column type.

	boolean	byte	short	char	int	long	float	double	String	byte[]
boolean	X									X
byte		X	X		X	X				X
short			X		X	X				X
char				X						X
int					X	X				X
long						X				X
float							X	X		X
double								X		X
String	X	X	X		X	X	X	X	X	
byte[]										X

Since:

1.3

## 6.657.2 Constructor & Destructor Documentation

**6.657.2.1** virtual cms::StreamMessage::~StreamMessage () [inline, virtual]

## 6.657.3 Member Function Documentation

**6.657.3.1** virtual bool cms::StreamMessage::readBoolean () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]

Reads a Boolean from the Stream message stream.

### Returns:

boolean value from stream

### Exceptions:

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 468).

**6.657.3.2** virtual unsigned char cms::StreamMessage::readByte () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]

Reads a Byte from the Stream message stream.

### Returns:

unsigned char value from stream

### Exceptions:

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 469).



**6.657.3.3** `virtual std::size_t cms::StreamMessage::readBytes (unsigned char * buffer, std::size_t length) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [pure virtual]

Reads a portion of the Stream message stream. If the length of array value is less than the number of bytes remaining to be read from the stream, the array should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of array value, the bytes should be read into the array. The return value of the total number of bytes read will be less than the length of the array, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

If length is negative, or length is greater than the length of the array value, then an **CMSException** (p. 1031) is thrown. No bytes will be read from the stream for this exception case.

#### Parameters:

*buffer* the buffer into which the data is read

*length* the number of bytes to read; must be less than or equal to value.length

#### Returns:

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

#### Exceptions:

**CMSException** (p. 1031) - if the CMS provider fails to read the message due to some internal error.

**MessageEOFException** (p. 2277) - if unexpected end of message stream has been reached.

**MessageFormatException** (p. 2278) - if this type conversion is invalid.

**MessageNotReadableException** (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 469).

**6.657.3.4** `virtual std::size_t cms::StreamMessage::readBytes (std::vector< unsigned char > & value) const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [pure virtual]

Reads a byte array from the Stream message stream. If the length of vector value is less than the number of bytes remaining to be read from the stream, the vector should be filled. A subsequent call reads the next increment, and so on.

If the number of bytes remaining in the stream is less than the length of vector value, the bytes should be read into the vector. The return value of the total number of bytes read will be less than the length of the vector, indicating that there are no more bytes left to be read from the stream. The next read of the stream returns -1.

#### Parameters:

*value* buffer to place data in

**Returns:**

the total number of bytes read into the buffer, or -1 if there is no more data because the end of the stream has been reached

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 470).

**6.657.3.5** `virtual char cms::StreamMessage::readChar () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException ) [pure virtual]`

Reads a Char from the Stream message stream.

**Returns:**

char value from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 470).

**6.657.3.6** `virtual double cms::StreamMessage::readDouble () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException ) [pure virtual]`

Reads a 64 bit double from the Stream message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 471).

**6.657.3.7** `virtual float cms::StreamMessage::readFloat () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [pure virtual]

Reads a 32 bit float from the Stream message stream.

**Returns:**

double value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 471).

**6.657.3.8** `virtual int cms::StreamMessage::readInt () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException )` [pure virtual]

Reads a 32 bit signed integer from the Stream message stream.

**Returns:**

int value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 472).

**6.657.3.9** `virtual long long cms::StreamMessage::readLong () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 64 bit long from the Stream message stream.

**Returns:**

long long value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 472).

**6.657.3.10** `virtual short cms::StreamMessage::readShort () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads a 16 bit signed short from the Stream message stream.

**Returns:**

short value from stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 472).

**6.657.3.11** `virtual std::string cms::StreamMessage::readString () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSException ) [pure virtual]`

Reads an ASCII String from the Stream message stream.

**Returns:**

String from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 473).

**6.657.3.12** `virtual unsigned short cms::StreamMessage::readUnsignedShort () const throw ( cms::MessageEOFException, cms::MessageFormatException, cms::MessageNotReadableException, cms::CMSEException ) [pure virtual]`

Reads a 16 bit unsigned short from the Stream message stream.

**Returns:**

unsigned short value from stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to read the message due to some internal error.

*MessageEOFException* (p. 2277) - if unexpected end of message stream has been reached.

*MessageFormatException* (p. 2278) - if this type conversion is invalid.

*MessageNotReadableException* (p. 2330) - if the message is in write-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 473).

**6.657.3.13** `virtual void cms::StreamMessage::writeBoolean (bool value) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Writes a boolean to the Stream message stream as a 1-byte value. The value true is written as the value (byte)1; the value false is written as the value (byte)0.

**Parameters:**

*value* boolean to write to the stream

**Exceptions:**

*CMSEException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 474).

**6.657.3.14** `virtual void cms::StreamMessage::writeByte (unsigned char value)  
throw ( cms::MessageNotWriteableException, cms::CMSException )  
[pure virtual]`

Writes a byte to the Stream message stream as a 1-byte value.

**Parameters:**

*value* byte to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 474).

**6.657.3.15** `virtual void cms::StreamMessage::writeBytes (const unsigned  
char * value, std::size_t offset, std::size_t length) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure  
virtual]`

Writes a portion of a byte array to the Stream message stream. size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

*offset* the initial offset within the byte array

*length* the number of bytes to use

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 475).

**6.657.3.16** `virtual void cms::StreamMessage::writeBytes (const std::vector<  
unsigned char > & value) throw ( cms::MessageNotWriteableException,  
cms::CMSException ) [pure virtual]`

Writes a byte array to the Stream message stream using the vector size as the number of bytes to write.

**Parameters:**

*value* bytes to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 475).

**6.657.3.17** `virtual void cms::StreamMessage::writeChar (char value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a char to the Stream message stream as a 1-byte value.

**Parameters:**

*value* char to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 475).

**6.657.3.18** `virtual void cms::StreamMessage::writeDouble (double value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a double to the Stream message stream as a 8 byte value.

**Parameters:**

*value* double to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 476).

**6.657.3.19** `virtual void cms::StreamMessage::writeFloat (float value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a float to the Stream message stream as a 4 byte value.

**Parameters:**

*value* float to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 476).

**6.657.3.20** `virtual void cms::StreamMessage::writeInt (int value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a signed int to the Stream message stream as a 4 byte value.

**Parameters:**

*value* signed int to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 476).

**6.657.3.21** `virtual void cms::StreamMessage::writeLong (long long value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a long long to the Stream message stream as a 8 byte value.

**Parameters:**

*value* signed long long to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 477).

**6.657.3.22** `virtual void cms::StreamMessage::writeShort (short value) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]`

Writes a signed short to the Stream message stream as a 2 byte value.

**Parameters:**

*value* signed short to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in `activemq::commands::ActiveMQStreamMessage` (p. 477).



**6.657.3.23** virtual void cms::StreamMessage::writeString (const std::string & *value*)  
throw ( cms::MessageNotWriteableException, cms::CMSException )  
[pure virtual]

Writes an ASCII String to the Stream message stream.

**Parameters:**

*value* String to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 477).

**6.657.3.24** virtual void cms::StreamMessage::writeUnsignedShort (unsigned short *value*) throw ( cms::MessageNotWriteableException, cms::CMSException ) [pure virtual]

Writes a unsigned short to the Stream message stream as a 2 byte value.

**Parameters:**

*value* unsigned short to write to the stream

**Exceptions:**

*CMSException* (p. 1031) - if the CMS provider fails to write the message due to some internal error.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode.

Implemented in **activemq::commands::ActiveMQStreamMessage** (p. 478).

The documentation for this class was generated from the following file:

- src/main/cms/StreamMessage.h

## 6.658 decaf::util::StringTokenizer Class Reference

```
#include <src/main/decaf/util/StringTokenizer.h>
```

### Public Member Functions

- **StringTokenizer** (const std::string &str, const std::string &delim=" \t\n\r\f", bool returnDelims=false)  
*Constructs a string tokenizer for the specified string.*
- virtual ~**StringTokenizer** ()
- virtual int **countTokens** () const  
*Calculates the number of times that this tokenizer's nextToken method can be called before it generates an exception.*
- virtual bool **hasMoreTokens** () const  
*Tests if there are more tokens available from this tokenizer's string.*
- virtual std::string **nextToken** () throw ( lang::exceptions::NoSuchElementException )  
*Returns the next token from this string tokenizer.*
- virtual std::string **nextToken** (const std::string &delim) throw ( lang::exceptions::NoSuchElementException )  
*Returns the next token in this string tokenizer's string.*
- virtual unsigned int **toArray** (std::vector< std::string > &array)  
*Grab all remaining tokens in the String and return them in the vector that is passed in by reference.*
- virtual void **reset** (const std::string &str="", const std::string &delim="", bool returnDelims=false)  
*Resets the Tokenizer's position in the String to the Beginning calls to countToken and nextToken now start back at the beginning.*

### 6.658.1 Constructor & Destructor Documentation

#### 6.658.1.1 decaf::util::StringTokenizer::StringTokenizer (const std::string & str, const std::string & delim = " \t\n\r\f", bool returnDelims = false)

Constructs a string tokenizer for the specified string. All characters in the delim argument are the delimiters for separating tokens.

If the returnDelims flag is true, then the delimiter characters are also returned as tokens. Each delimiter is returned as a string of length one. If the flag is false, the delimiter characters are skipped and only serve as separators between tokens.

Note that if delim is "", this constructor does not throw an exception. However, trying to invoke other methods on the resulting **StringTokenizer** (p. 3094) may result in an Exception.

#### Parameters:

*str* - The string to tokenize

*delim* - String containing the delimiters

*returnDelims* - boolean indicating if the delimiters are returned as tokens

**6.658.1.2** virtual decaf::util::StringTokenizer::~~StringTokenizer () [virtual]

## 6.658.2 Member Function Documentation

**6.658.2.1** virtual int decaf::util::StringTokenizer::countTokens () const [virtual]

Calculates the number of times that this tokenizer's nextToken method can be called before it generates an exception. The current position is not advanced.

### Returns:

Count of remaining tokens

**6.658.2.2** virtual bool decaf::util::StringTokenizer::hasMoreTokens () const [virtual]

Tests if there are more tokens available from this tokenizer's string.

### Returns:

true if there are more tokens remaining

**6.658.2.3** virtual std::string decaf::util::StringTokenizer::nextToken (const std::string & *delim*) throw ( lang::exceptions::NoSuchElementException ) [virtual]

Returns the next token in this string tokenizer's string. First, the set of characters considered to be delimiters by this **StringTokenizer** (p. 3094) object is changed to be the characters in the string *delim*. Then the next token in the string after the current position is returned. The current position is advanced beyond the recognized token. The new delimiter set remains the default after this call.

### Parameters:

*delim* - string containing the new set of delimiters

### Returns:

next string in the token list

### Exceptions:

*NoSuchElementException*

**6.658.2.4** virtual std::string decaf::util::StringTokenizer::nextToken () throw ( lang::exceptions::NoSuchElementException ) [virtual]

Returns the next token from this string tokenizer.

**Returns:**

string value of next token

**Exceptions:**

*NoSuchElementException*

**6.658.2.5** `virtual void decaf::util::StringTokenizer::reset (const std::string & str = "", const std::string & delim = "", bool returnDelims = false) [virtual]`

Resets the Tokenizer's position in the String to the Beginning calls to countToken and nextToken now start back at the beginning. This allows this object to be reused, the caller need not create a new instance every time a String needs tokenizing. If set the string param will reset the string that this Tokenizer is working on. If set to "" no change is made. If set the delim param will reset the string that this Tokenizer is using to tokenizer the string. If set to "", no change is made If set the return Delims will set if this Tokenizer will return delimiters as tokens. Defaults to false.

**Parameters:**

*str* - New String to tokenize or "", defaults to ""

*delim* - New Delimiter String to use or "", defaults to ""

*returnDelims* - Should the Tokenizer return delimiters as Tokens, default false

**6.658.2.6** `virtual unsigned int decaf::util::StringTokenizer::toArray (std::vector< std::string > & array) [virtual]`

Grab all remaining tokens in the String and return them in the vector that is passed in by reference.

**Parameters:**

*array* - vector to place token strings in

**Returns:**

number of string placed into the vector

The documentation for this class was generated from the following file:

- src/main/decaf/util/**StringTokenizer.h**

## 6.659 activemq::commands::SubscriptionInfo Class Reference

#include <src/main/activemq/commands/SubscriptionInfo.h> Inheritance diagram for activemq::commands::SubscriptionInfo:

### Public Member Functions

- **SubscriptionInfo** ()
- virtual **~SubscriptionInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **SubscriptionInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const std::string & **getClientId** () const
- virtual std::string & **getClientId** ()
- virtual void **setClientId** (const std::string &clientId)
- virtual const **Pointer**< **ActiveMQDestination** > & **getDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getDestination** ()
- virtual void **setDestination** (const **Pointer**< **ActiveMQDestination** > &destination)
- virtual const std::string & **getSelector** () const
- virtual std::string & **getSelector** ()
- virtual void **setSelector** (const std::string &selector)
- virtual const std::string & **getSubscriptionName** () const
- virtual std::string & **getSubscriptionName** ()
- virtual void **setSubscriptionName** (const std::string &subscriptionName)
- virtual const **Pointer**< **ActiveMQDestination** > & **getSubscribedDestination** () const
- virtual **Pointer**< **ActiveMQDestination** > & **getSubscribedDestination** ()
- virtual void **setSubscribedDestination** (const **Pointer**< **ActiveMQDestination** > &subscribedDestination)

### Static Public Attributes

- static const unsigned char **ID\_SUBSCRIPTIONINFO** = 55

## Protected Member Functions

- **SubscriptionInfo** (const **SubscriptionInfo** &)
- **SubscriptionInfo** & **operator=** (const **SubscriptionInfo** &)

## Protected Attributes

- std::string **clientId**
- **Pointer**< **ActiveMQDestination** > **destination**
- std::string **selector**
- std::string **subscriptionName**
- **Pointer**< **ActiveMQDestination** > **subscribedDestination**

## 6.659.1 Constructor & Destructor Documentation

- 6.659.1.1** **activemq::commands::SubscriptionInfo::SubscriptionInfo** (const **SubscriptionInfo** &) [inline, protected]
- 6.659.1.2** **activemq::commands::SubscriptionInfo::SubscriptionInfo** ()
- 6.659.1.3** **virtual activemq::commands::SubscriptionInfo::~~SubscriptionInfo** () [virtual]

## 6.659.2 Member Function Documentation

- 6.659.2.1** **virtual SubscriptionInfo\* activemq::commands::SubscriptionInfo::cloneDataStructure** () const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements **activemq::commands::DataStructure** (p. 1461).

- 6.659.2.2** **virtual void activemq::commands::SubscriptionInfo::copyDataStructure** (const **DataStructure** \* *src*) [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements **activemq::commands::DataStructure** (p. 1462).

**6.659.2.3** `virtual bool activemq::commands::SubscriptionInfo::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

**6.659.2.4** `virtual std::string& activemq::commands::SubscriptionInfo::getClientId ()` [virtual]

**6.659.2.5** `virtual const std::string& activemq::commands::SubscriptionInfo::getClientId () const` [virtual]

**6.659.2.6** `virtual unsigned char activemq::commands::SubscriptionInfo::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

- 6.659.2.7 `virtual Pointer<ActiveMQDestination>& activemq::commands::SubscriptionInfo::getDestination ()`  
[virtual]
- 6.659.2.8 `virtual const Pointer<ActiveMQDestination>& activemq::commands::SubscriptionInfo::getDestination () const`  
[virtual]
- 6.659.2.9 `virtual std::string& activemq::commands::SubscriptionInfo::getSelector ()`  
[virtual]
- 6.659.2.10 `virtual const std::string& activemq::commands::SubscriptionInfo::getSelector () const`  
[virtual]
- 6.659.2.11 `virtual std::string& activemq::commands::SubscriptionInfo::getSubscriptionName ()`  
[virtual]
- 6.659.2.12 `virtual const std::string& activemq::commands::SubscriptionInfo::getSubscriptionName () const`  
[virtual]
- 6.659.2.13 `virtual Pointer<ActiveMQDestination>& activemq::commands::SubscriptionInfo::getSubscribedDestination ()`  
[virtual]
- 6.659.2.14 `virtual const Pointer<ActiveMQDestination>& activemq::commands::SubscriptionInfo::getSubscribedDestination () const` [virtual]
- 6.659.2.15 `SubscriptionInfo& activemq::commands::SubscriptionInfo::operator= (const SubscriptionInfo &)` [inline, protected]
- 6.659.2.16 `virtual void activemq::commands::SubscriptionInfo::setClientId (const std::string & clientId)` [virtual]
- 6.659.2.17 `virtual void activemq::commands::SubscriptionInfo::setDestination (const Pointer< ActiveMQDestination > & destination)` [virtual]
- 6.659.2.18 `virtual void activemq::commands::SubscriptionInfo::setSelector (const std::string & selector)` [virtual]
- 6.659.2.19 `virtual void activemq::commands::SubscriptionInfo::setSubscriptionName (const std::string & subscriptionName)` [virtual]
- 6.659.2.20 `virtual void activemq::commands::SubscriptionInfo::setSubscribedDestination (const Pointer< ActiveMQDestination > & subscribedDestination)` [virtual]
- 6.659.2.21 `virtual std::string activemq::commands::SubscriptionInfo::toString () const` [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.



**Returns:**

formatted string useful for debugging.

Reimplemented from `activemq::commands::BaseDataStructure` (p. 718).

**6.659.3 Field Documentation**

**6.659.3.1** `std::string activemq::commands::SubscriptionInfo::clientId` [protected]

**6.659.3.2** `Pointer<ActiveMQDestination> activemq::commands::SubscriptionInfo::destination`  
[protected]

**6.659.3.3** `const unsigned char activemq::commands::SubscriptionInfo::ID__ - SUBSCRIPTIONINFO = 55` [static]

**6.659.3.4** `std::string activemq::commands::SubscriptionInfo::selector` [protected]

**6.659.3.5** `std::string activemq::commands::SubscriptionInfo::subscriptionName`  
[protected]

**6.659.3.6** `Pointer<ActiveMQDestination> activemq::commands::SubscriptionInfo::subscribedDestination`  
[protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/SubscriptionInfo.h`

## 6.660 activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3102).

#include <src/main/activemq/wireformat/openwire/marshal/v1/SubscriptionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller:

### Public Member Functions

- **SubscriptionInfoMarshaller** ()
- virtual **~SubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.660.1 Detailed Description

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3102). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.660.2 Constructor & Destructor Documentation

**6.660.2.1** `activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::SubscriptionInfoMarshaller()` [inline]

**6.660.2.2** `virtual activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::~~SubscriptionInfoMarshaller()` [inline, virtual]

## 6.660.3 Member Function Documentation

**6.660.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::createObject() const` [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.660.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::getDataStructureType() const` [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.660.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.660.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.660.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.660.3.6** virtual void activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.660.3.7** virtual void activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**SubscriptionInfoMarshaller.h**

## 6.661 activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3106).

#include <src/main/activemq/wireformat/openwire/marshal/v3/SubscriptionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller:

### Public Member Functions

- **SubscriptionInfoMarshaller** ()
- virtual **~SubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.661.1 Detailed Description

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3106). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.661.2 Constructor & Destructor Documentation

**6.661.2.1** `activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::SubscriptionInfoMarshaller()` [inline]

**6.661.2.2** `virtual activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::~~SubscriptionInfoMarshaller()` [inline, virtual]

## 6.661.3 Member Function Documentation

**6.661.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.661.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.661.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.661.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.661.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.661.3.6** virtual void activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.661.3.7** virtual void activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/SubscriptionInfoMarshaller.h

## 6.662 activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3110).

#include <src/main/activemq/wireformat/openwire/marshal/v5/SubscriptionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller:

### Public Member Functions

- **SubscriptionInfoMarshaller** ()
- virtual **~SubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal1** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.662.1 Detailed Description

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3110). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.662.2 Constructor & Destructor Documentation

**6.662.2.1** `activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::SubscriptionInfoMarshaller()` `[inline]`

**6.662.2.2** `virtual activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::~~SubscriptionInfoMarshaller()` `[inline, virtual]`

## 6.662.3 Member Function Documentation

**6.662.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.662.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.662.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.662.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.662.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.662.3.6** virtual void activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.662.3.7** virtual void activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/SubscriptionInfoMarshaller.h

## 6.663 activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3114).

#include <src/main/activemq/wireformat/openwire/marshal/v4/SubscriptionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller:

### Public Member Functions

- **SubscriptionInfoMarshaller** ()
- virtual **~SubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.663.1 Detailed Description

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3114). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.663.2 Constructor & Destructor Documentation

**6.663.2.1** `activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::SubscriptionInfoMarshaller()` [inline]

**6.663.2.2** `virtual activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::~~SubscriptionInfoMarshaller()` [inline, virtual]

## 6.663.3 Member Function Documentation

**6.663.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.663.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.663.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.663.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.663.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).



**6.663.3.6** virtual void activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.663.3.7** virtual void activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/SubscriptionInfoMarshaller.h

## 6.664 activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3118).

#include <src/main/activemq/wireformat/openwire/marshal/v2/SubscriptionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller:

### Public Member Functions

- **SubscriptionInfoMarshaller** ()
- virtual **~SubscriptionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.664.1 Detailed Description

Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3118). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.664.2 Constructor & Destructor Documentation

**6.664.2.1** `activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::SubscriptionInfoMarshaller()` `[inline]`

**6.664.2.2** `virtual activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::~~SubscriptionInfoMarshaller()` `[inline, virtual]`

## 6.664.3 Member Function Documentation

**6.664.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.664.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.664.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.664.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.664.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.664.3.6** virtual void activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1448).

**6.664.3.7** virtual void activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p.1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/SubscriptionInfoMarshaller.h

## 6.665 decaf::util::concurrent::Synchronizable Class Reference

The interface for all synchronizable objects (that is, objects that can be locked and unlocked).

#include <src/main/decaf/util/concurrent/Synchronizable.h> Inheritance diagram for decaf::util::concurrent::Synchronizable:

### Public Member Functions

- virtual **~Synchronizable** ()
- virtual void **lock** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to **Lock** (p. 2023) the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** ()=0 throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos)=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentOutOfRangeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** ()=0 throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.665.1 Detailed Description

The interface for all synchronizable objects (that is, objects that can be locked and unlocked).

Since:

1.0

### 6.665.2 Constructor & Destructor Documentation

**6.665.2.1** virtual decaf::util::concurrent::Synchronizable::~~Synchronizable ()  
[inline, virtual]

### 6.665.3 Member Function Documentation

**6.665.3.1** virtual void decaf::util::concurrent::Synchronizable::lock () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]

Locks the object.

Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implemented in `activemq::core::MessageDispatchChannel` (p. 2227), `decaf::internal::io::StandardErrorOutputStream` (p. 2996), `decaf::internal::io::StandardInputStream` (p. 3002), `decaf::internal::io::StandardOutputStream` (p. 3009), `decaf::internal::util::concurrent::SynchronizableImpl` (p. 3134), `decaf::io::BlockingByteArrayInputStream` (p. 726), `decaf::io::ByteArrayInputStream` (p. 895), `decaf::io::ByteArrayOutputStream` (p. 902), `decaf::io::FilterInputStream` (p. 1634), `decaf::io::FilterOutputStream` (p. 1643), `decaf::net::SocketInputStream` (p. 2979), `decaf::net::SocketOutputStream` (p. 2986), `decaf::util::AbstractCollection< E >` (p. 154), `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >` (p. 1110), `decaf::util::concurrent::Mutex` (p. 2386), `decaf::util::StlMap< K, V, COMPARATOR >` (p. 3037), `decaf::util::StlQueue< T >` (p. 3047), `decaf::util::AbstractCollection< transport::TransportListener * >` (p. 154), `decaf::util::AbstractCollection< Pointer< Synchronization > >` (p. 154), `decaf::util::AbstractCollection< CompositeTask * >` (p. 154), `decaf::util::AbstractCollection< URI >` (p. 154), `decaf::util::AbstractCollection< ActiveMQSession * >` (p. 154), `decaf::util::AbstractCollection< Pointer< DestinationInfo > >` (p. 154), `decaf::util::AbstractCollection< PrimitiveValueNode >` (p. 154), `decaf::util::AbstractCollection< Pointer< Command > >` (p. 154), `decaf::util::AbstractCollection< Pointer< BackupTransport > >` (p. 154), `decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer<`

ProducerState >, ProducerId::COMPARATOR > (p.1110), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p.3037), decaf::util::StlMap< std::string, WireFormatFactory \* > (p.3037), decaf::util::StlMap< std::string, PrimitiveValueNode > (p.3037), decaf::util::StlMap< std::string, cms::Queue \* > (p.3037), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p.3037), decaf::util::StlMap< std::string, CachedConsumer \* > (p.3037), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p.3037), decaf::util::StlMap< std::string, TransportFactory \* > (p.3037), decaf::util::StlMap< int, Pointer< Command > > (p.3037), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p.3037), decaf::util::StlMap< std::string, CachedProducer \* > (p.3037), decaf::util::StlMap< std::string, cms::Topic \* > (p.3037), decaf::util::StlQueue< Pointer< Transport > > (p.3047), decaf::util::StlQueue< Pointer< MessageDispatch > > (p.3047), decaf::util::StlQueue< Task > (p.3047), decaf::util::StlQueue< Pointer< Command > > (p.3047), and decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > > (p.3047).

Referenced by decaf::util::concurrent::Lock::lock().

**6.665.3.2** virtual void decaf::util::concurrent::Synchronizable::notify  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

**IllegalMonitorStateException** - if the current thread is not the owner of the the **Synchronizable** (p.3122) Object.

**RuntimeException** if an error occurs while notifying one of the waiting threads.

Implemented in **activemq::core::MessageDispatchChannel** (p.2227),  
**decaf::internal::io::StandardErrorOutputStream** (p.2996), **decaf::internal::io::StandardInputStream** (p.3003), **decaf::internal::io::StandardOutputStream** (p.3010), **decaf::internal::util::concurrent::SynchronizableImpl** (p.3134), **decaf::io::BlockingByteArrayInputStream** (p.727), **decaf::io::ByteArrayInputStream** (p.895), **decaf::io::ByteArrayOutputStream** (p.902), **decaf::io::FilterInputStream** (p.1635), **decaf::io::FilterOutputStream** (p.1643), **decaf::net::SocketInputStream** (p.2980), **decaf::net::SocketOutputStream** (p.2986), **decaf::util::AbstractCollection< E >** (p.154), **decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >** (p.1110), **decaf::util::concurrent::Mutex** (p.2386), **decaf::util::StlMap< K, V, COMPARATOR >** (p.3038), **decaf::util::StlQueue< T >** (p.3047), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p.154), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p.154), **decaf::util::AbstractCollection< CompositeTask \* >** (p.154), **decaf::util::AbstractCollection< URI >** (p.154), **decaf::util::AbstractCollection< ActiveMQSession \* >** (p.154), **decaf::util::AbstractCollection< Pointer< DestinationInfo > >** (p.154), **decaf::util::AbstractCollection< PrimitiveValueNode >** (p.154), **decaf::util::AbstractCollection< Pointer< Command > >** (p.154), **decaf::util::AbstractCollection< Pointer< BackupTransport > >** (p.154), **decaf::util::concurrent::ConcurrentStlMap<**



Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1110), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1110), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1110), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1110), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1110), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1110), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3038), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3038), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3038), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3038), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3038), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3038), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3038), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3038), decaf::util::StlMap< int, Pointer< Command > > (p. 3038), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3038), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3038), decaf::util::StlMap< std::string, cms::Topic \* > (p. 3038), decaf::util::StlQueue< Pointer< Transport > > (p. 3047), decaf::util::StlQueue< Pointer< MessageDispatch > > (p. 3047), decaf::util::StlQueue< Task > (p. 3047), decaf::util::StlQueue< Pointer< Command > > (p. 3047), and decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > > (p. 3047).

**6.665.3.3 virtual void decaf::util::concurrent::Synchronizable::notifyAll**  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException ) [pure virtual]

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

#### Exceptions:

**IllegalMonitorStateException** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

**RuntimeException** if an error occurs while notifying the waiting threads.

Implemented in **activemq::core::MessageDispatchChannel** (p. 2227),  
**decaf::internal::io::StandardOutputStream** (p. 2996),  
**decaf::internal::io::StandardInputStream** (p. 3003), **decaf::internal::io::StandardOutputStream**  
 (p. 3010), **decaf::internal::util::concurrent::SynchronizableImpl** (p. 3134),  
**decaf::io::BlockingByteArrayInputStream** (p. 727), **decaf::io::ByteArrayInputStream**  
 (p. 896), **decaf::io::ByteArrayOutputStream** (p. 903), **decaf::io::FilterInputStream**  
 (p. 1635), **decaf::io::FilterOutputStream** (p. 1643), **decaf::net::SocketInputStream**  
 (p. 2980), **decaf::net::SocketOutputStream** (p. 2986), **decaf::util::AbstractCollection< E >**  
 (p. 154), **decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >**  
 (p. 1110), **decaf::util::concurrent::Mutex** (p. 2387), **decaf::util::StlMap< K, V, COMPARATOR >**  
 (p. 3038), **decaf::util::StlQueue< T >** (p. 3047), **decaf::util::AbstractCollection< transport::TransportListener \***

> (p. 154), `decaf::util::AbstractCollection< Pointer< Synchronization >`  
> (p. 154), `decaf::util::AbstractCollection< CompositeTask * >` (p. 154),  
`decaf::util::AbstractCollection< URI >` (p. 154), `decaf::util::AbstractCollection<`  
`ActiveMQSession * >` (p. 154), `decaf::util::AbstractCollection< Pointer<`  
`DestinationInfo > >` (p. 154), `decaf::util::AbstractCollection< Primitive-`  
`ValueNode >` (p. 154), `decaf::util::AbstractCollection< Pointer< Com-`  
`mand > >` (p. 154), `decaf::util::AbstractCollection< Pointer< Back-`  
`upTransport > >` (p. 154), `decaf::util::concurrent::ConcurrentStlMap<`  
`Pointer< TransactionId >, Pointer< TransactionState >, Transac-`  
`tionId::COMPARATOR >` (p. 1110), `decaf::util::concurrent::ConcurrentStlMap<`  
`Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR`  
> (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< Connec-`  
`tionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR`  
> (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< Con-`  
`sumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR`  
> (p. 1110), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId`  
>, `Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1110),  
`decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer<`  
`ProducerState >, ProducerId::COMPARATOR >` (p. 1110), `decaf::util::StlMap<`  
`cms::Session *, SessionResolver * >` (p. 3038), `decaf::util::StlMap< std::string,`  
`WireFormatFactory * >` (p. 3038), `decaf::util::StlMap< std::string, PrimitiveVal-`  
`ueNode >` (p. 3038), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3038),  
`decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, com-`  
`mands::ProducerId::COMPARATOR >` (p. 3038), `decaf::util::StlMap< std::string,`  
`CachedConsumer * >` (p. 3038), `decaf::util::StlMap< Pointer< commands::ConsumerId`  
>, `ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3038),  
`decaf::util::StlMap< std::string, TransportFactory * >` (p. 3038), `decaf::util::StlMap<`  
`int, Pointer< Command > >` (p. 3038), `decaf::util::StlMap< Pointer< com-`  
`mands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR`  
> (p. 3038), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3038),  
`decaf::util::StlMap< std::string, cms::Topic * >` (p. 3038), `decaf::util::StlQueue<`  
`Pointer< Transport > >` (p. 3047), `decaf::util::StlQueue< Pointer< MessageDis-`  
`patch > >` (p. 3047), `decaf::util::StlQueue< Task >` (p. 3047), `decaf::util::StlQueue<`  
`Pointer< Command > >` (p. 3047), and `decaf::util::StlQueue< decaf::lang::Pointer<`  
`commands::MessageDispatch > >` (p. 3047).

**6.665.3.4** `virtual bool decaf::util::concurrent::Synchronizable::tryLock () throw (`  
`decaf::lang::exceptions::RuntimeException ) [pure virtual]`

Attempts to **Lock** (p. 2023) the object, if the lock is already held by another thread than this method returns false.

#### Returns:

true if the lock was acquired, false if it is already held by another thread.

#### Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implemented in `activemq::core::MessageDispatchChannel` (p. 2228),  
`decaf::internal::io::StandardOutputStream` (p. 2996), `de-`  
`cafe::internal::io::StandardInputStream` (p. 3005), `decaf::internal::io::StandardOutputStream`  
(p. 3010), `decaf::internal::util::concurrent::SynchronizableImpl` (p. 3135), `de-`  
`cafe::io::BlockingByteArrayInputStream` (p. 730), `decaf::io::ByteArrayInputStream`

(p. 898), decaf::io::ByteArrayOutputStream (p. 904), decaf::io::FilterInputStream (p. 1637), decaf::io::FilterOutputStream (p. 1643), decaf::net::SocketInputStream (p. 2982), decaf::net::SocketOutputStream (p. 2987), decaf::util::AbstractCollection< E > (p. 157), decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1115), decaf::util::concurrent::Mutex (p. 2387), decaf::util::StlMap< K, V, COMPARATOR > (p. 3040), decaf::util::StlQueue< T > (p. 3048), decaf::util::AbstractCollection< transport::TransportListener \* > (p. 157), decaf::util::AbstractCollection< Pointer< Synchronization > > (p. 157), decaf::util::AbstractCollection< CompositeTask \* > (p. 157), decaf::util::AbstractCollection< URI > (p. 157), decaf::util::AbstractCollection< ActiveMQSession \* > (p. 157), decaf::util::AbstractCollection< Pointer< DestinationInfo > > (p. 157), decaf::util::AbstractCollection< PrimitiveValueNode > (p. 157), decaf::util::AbstractCollection< Pointer< Command > > (p. 157), decaf::util::AbstractCollection< Pointer< BackupTransport > > (p. 157), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1115), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3040), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3040), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3040), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3040), decaf::util::StlMap< int, Pointer< Command > > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3040), decaf::util::StlMap< std::string, cms::Topic \* > (p. 3040), decaf::util::StlQueue< Pointer< Transport > > (p. 3048), decaf::util::StlQueue< Pointer< MessageDispatch > > (p. 3048), decaf::util::StlQueue< Task > (p. 3048), decaf::util::StlQueue< Pointer< Command > > (p. 3048), and decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > > (p. 3048).

**6.665.3.5** virtual void decaf::util::concurrent::Synchronizable::unlock () throw ( decaf::lang::exceptions::RuntimeException ) [pure virtual]

Unlocks the object.

#### Exceptions:

*RuntimeException* if an error occurs while unlocking the object.

Implemented in `activemq::core::MessageDispatchChannel` (p. 2229),  
`decaf::internal::io::StandardErrorOutputStream` (p. 2997), `de-`

caf::internal::io::StandardInputStream (p. 3005), decaf::internal::io::StandardOutputStream (p. 3010), decaf::internal::util::concurrent::SynchronizableImpl (p. 3135), decaf::io::BlockingByteArrayInputStream (p. 730), decaf::io::ByteArrayInputStream (p. 898), decaf::io::ByteArrayOutputStream (p. 904), decaf::io::FilterInputStream (p. 1637), decaf::io::FilterOutputStream (p. 1644), decaf::net::SocketInputStream (p. 2982), decaf::net::SocketOutputStream (p. 2987), decaf::util::AbstractCollection< E > (p. 157), decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR > (p. 1115), decaf::util::concurrent::Mutex (p. 2387), decaf::util::StlMap< K, V, COMPARATOR > (p. 3040), decaf::util::StlQueue< T > (p. 3049), decaf::util::AbstractCollection< transport::TransportListener \* > (p. 157), decaf::util::AbstractCollection< Pointer< Synchronization > > (p. 157), decaf::util::AbstractCollection< CompositeTask \* > (p. 157), decaf::util::AbstractCollection< URI > (p. 157), decaf::util::AbstractCollection< ActiveMQSession \* > (p. 157), decaf::util::AbstractCollection< Pointer< DestinationInfo > > (p. 157), decaf::util::AbstractCollection< PrimitiveValueNode > > (p. 157), decaf::util::AbstractCollection< Pointer< Command > > (p. 157), decaf::util::AbstractCollection< Pointer< BackupTransport > > (p. 157), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1115), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1115), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3040), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3040), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3040), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3040), decaf::util::StlMap< int, Pointer< Command > > (p. 3040), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3040), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3040), decaf::util::StlMap< std::string, cms::Topic \* > (p. 3040), decaf::util::StlQueue< Pointer< Transport > > (p. 3049), decaf::util::StlQueue< Pointer< MessageDispatch > > (p. 3049), decaf::util::StlQueue< Task > (p. 3049), decaf::util::StlQueue< Pointer< Command > > (p. 3049), and decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > > (p. 3049).

Referenced by decaf::util::concurrent::Lock::unlock(), and decaf::util::concurrent::Lock::~~Lock().

**6.665.3.6** virtual void decaf::util::concurrent::Synchronizable::wait (long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [pure virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

#### Exceptions:

**IllegalArgumentException** if an error occurs or the nanos argument is not in the range of [0-999999]

**RuntimeException** if an error occurs while waiting on the object.

**InterruptedException** if the wait is interrupted before it completes.

**IllegalMonitorStateException** - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implemented in **activemq::core::MessageDispatchChannel** (p. 2229), **decaf::internal::io::StandardOutputStream** (p. 2997), **decaf::internal::io::StandardInputStream** (p. 3005), **decaf::internal::io::StandardOutputStream** (p. 3011), **decaf::internal::util::concurrent::SynchronizableImpl** (p. 3135), **decaf::io::BlockingByteArrayInputStream** (p. 730), **decaf::io::ByteArrayInputStream** (p. 898), **decaf::io::ByteArrayOutputStream** (p. 905), **decaf::io::FilterInputStream** (p. 1638), **decaf::io::FilterOutputStream** (p. 1644), **decaf::net::SocketInputStream** (p. 2982), **decaf::net::SocketOutputStream** (p. 2987), **decaf::util::AbstractCollection< E >** (p. 158), **decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARATOR >** (p. 1115), **decaf::util::concurrent::Mutex** (p. 2388), **decaf::util::StlMap< K, V, COMPARATOR >** (p. 3041), **decaf::util::StlQueue< T >** (p. 3049), **decaf::util::AbstractCollection< transport::TransportListener \* >** (p. 158), **decaf::util::AbstractCollection< Pointer< Synchronization > >** (p. 158), **decaf::util::AbstractCollection< CompositeTask \* >** (p. 158), **decaf::util::AbstractCollection< URI >** (p. 158), **decaf::util::AbstractCollection< ActiveMQSession \* >** (p. 158), **decaf::util::AbstractCollection< Pointer< DestinationInfo > >** (p. 158), **decaf::util::AbstractCollection< PrimitiveValueNode >** (p. 158), **decaf::util::AbstractCollection< Pointer< Command > >** (p. 158), **decaf::util::AbstractCollection< Pointer< BackupTransport > >** (p. 158), **decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR >** (p. 1115), **decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR >** (p. 1115), **decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR**

> (p. 1115), `decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR`  
 > (p. 1115), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId`  
 >, `Pointer< SessionState >, SessionId::COMPARATOR` > (p. 1115),  
`decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer<`  
`ProducerState >, ProducerId::COMPARATOR` > (p. 1115), `decaf::util::StlMap<`  
`cms::Session *`, `SessionResolver *` > (p. 3041), `decaf::util::StlMap< std::string,`  
`WireFormatFactory *` > (p. 3041), `decaf::util::StlMap< std::string, PrimitiveVal-`  
`ueNode` > (p. 3041), `decaf::util::StlMap< std::string, cms::Queue *` > (p. 3041),  
`decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *`, `com-`  
`mands::ProducerId::COMPARATOR` > (p. 3041), `decaf::util::StlMap< std::string,`  
`CachedConsumer *` > (p. 3041), `decaf::util::StlMap< Pointer< commands::ConsumerId`  
 >, `ActiveMQConsumer *`, `commands::ConsumerId::COMPARATOR` > (p. 3041),  
`decaf::util::StlMap< std::string, TransportFactory *` > (p. 3041), `decaf::util::StlMap<`  
`int, Pointer< Command >` > (p. 3041), `decaf::util::StlMap< Pointer< com-`  
`mands::ConsumerId >, Dispatcher *`, `commands::ConsumerId::COMPARATOR`  
 > (p. 3041), `decaf::util::StlMap< std::string, CachedProducer *` > (p. 3041),  
`decaf::util::StlMap< std::string, cms::Topic *` > (p. 3041), `decaf::util::StlQueue<`  
`Pointer< Transport >` > (p. 3049), `decaf::util::StlQueue< Pointer< MessageDis-`  
`patch >` > (p. 3049), `decaf::util::StlQueue< Task >` > (p. 3049), `decaf::util::StlQueue<`  
`Pointer< Command >` > (p. 3049), and `decaf::util::StlQueue< decaf::lang::Pointer<`  
`commands::MessageDispatch >` > (p. 3049).

**6.665.3.7** virtual void `decaf::util::concurrent::Synchronizable::wait` (long  
 long *milliseconds*) throw ( `decaf::lang::exceptions::RuntimeException`,  
`decaf::lang::exceptions::IllegalMonitorStateException`,  
`decaf::lang::exceptions::InterruptedException` ) [pure virtual]

Waits on a signal from this object, which is generated by a call to `Notify`. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*milliseconds* the time in milliseconds to wait, or `WAIT_INFINITE`

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the `Synchronizable` (p. 3122) Object.

Implemented in `activemq::core::MessageDispatchChannel` (p. 2229),  
`decaf::internal::io::StandardOutputStream` (p. 2998), `de-`  
`caf::internal::io::StandardInputStream` (p. 3006), `decaf::internal::io::StandardOutputStream`  
 (p. 3011), `decaf::internal::util::concurrent::SynchronizableImpl` (p. 3136), `de-`  
`caf::io::BlockingByteArrayInputStream` (p. 731), `decaf::io::ByteArrayInputStream`  
 (p. 899), `decaf::io::ByteArrayOutputStream` (p. 905), `decaf::io::FilterInputStream`  
 (p. 1638), `decaf::io::FilterOutputStream` (p. 1644), `decaf::net::SocketInputStream`  
 (p. 2983), `decaf::net::SocketOutputStream` (p. 2988), `decaf::util::AbstractCollection<`  
`E` > (p. 158), `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARA-`  
`TOR` > (p. 1116), `decaf::util::concurrent::Mutex` (p. 2388), `decaf::util::StlMap<`  
`K, V, COMPARATOR` > (p. 3041), `decaf::util::StlQueue< T` >

(p. 3049), decaf::util::AbstractCollection< transport::TransportListener \* > (p. 158), decaf::util::AbstractCollection< Pointer< Synchronization > > (p. 158), decaf::util::AbstractCollection< CompositeTask \* > (p. 158), decaf::util::AbstractCollection< URI > (p. 158), decaf::util::AbstractCollection< ActiveMQSession \* > (p. 158), decaf::util::AbstractCollection< Pointer< DestinationInfo > > (p. 158), decaf::util::AbstractCollection< PrimitiveValueNode > > (p. 158), decaf::util::AbstractCollection< Pointer< Command > > (p. 158), decaf::util::AbstractCollection< Pointer< BackupTransport > > (p. 158), decaf::util::concurrent::ConcurrentStlMap< Pointer< TransactionId >, Pointer< TransactionState >, TransactionId::COMPARATOR > (p. 1116), decaf::util::concurrent::ConcurrentStlMap< Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR > (p. 1116), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConnectionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR > (p. 1116), decaf::util::concurrent::ConcurrentStlMap< Pointer< ConsumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR > (p. 1116), decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId >, Pointer< SessionState >, SessionId::COMPARATOR > (p. 1116), decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer< ProducerState >, ProducerId::COMPARATOR > (p. 1116), decaf::util::StlMap< cms::Session \*, SessionResolver \* > (p. 3041), decaf::util::StlMap< std::string, WireFormatFactory \* > (p. 3041), decaf::util::StlMap< std::string, PrimitiveValueNode > (p. 3041), decaf::util::StlMap< std::string, cms::Queue \* > (p. 3041), decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer \*, commands::ProducerId::COMPARATOR > (p. 3041), decaf::util::StlMap< std::string, CachedConsumer \* > (p. 3041), decaf::util::StlMap< Pointer< commands::ConsumerId >, ActiveMQConsumer \*, commands::ConsumerId::COMPARATOR > (p. 3041), decaf::util::StlMap< std::string, TransportFactory \* > (p. 3041), decaf::util::StlMap< int, Pointer< Command > > (p. 3041), decaf::util::StlMap< Pointer< commands::ConsumerId >, Dispatcher \*, commands::ConsumerId::COMPARATOR > (p. 3041), decaf::util::StlMap< std::string, CachedProducer \* > (p. 3041), decaf::util::StlMap< std::string, cms::Topic \* > (p. 3041), decaf::util::StlQueue< Pointer< Transport > > (p. 3049), decaf::util::StlQueue< Pointer< MessageDispatch > > (p. 3049), decaf::util::StlQueue< Task > (p. 3049), decaf::util::StlQueue< Pointer< Command > > (p. 3049), and decaf::util::StlQueue< decaf::lang::Pointer< commands::MessageDispatch > > (p. 3049).

**6.665.3.8** virtual void decaf::util::concurrent::Synchronizable::wait  
 () throw ( decaf::lang::exceptions::RuntimeException,  
 decaf::lang::exceptions::IllegalMonitorStateException,  
 decaf::lang::exceptions::InterruptedException ) [pure virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

*RuntimeException* if an error occurs while waiting on the object.

*InterruptedException* if the wait is interrupted before it completes.

*IllegalMonitorStateException* - if the current thread is not the owner of the the **Synchronizable** (p. 3122) Object.

Implemented in `activemq::core::MessageDispatchChannel` (p. 2230),  
`decaf::internal::io::StandardErrorOutputStream` (p. 2998), `de-`  
`caf::internal::io::StandardInputStream` (p. 3006), `decaf::internal::io::StandardOutputStream`  
(p. 3012), `decaf::internal::util::concurrent::SynchronizableImpl` (p. 3136), `de-`  
`caf::io::BlockingByteArrayInputStream` (p. 731), `decaf::io::ByteArrayInputStream`  
(p. 899), `decaf::io::ByteArrayOutputStream` (p. 906), `decaf::io::FilterInputStream`  
(p. 1639), `decaf::io::FilterOutputStream` (p. 1645), `decaf::net::SocketInputStream`  
(p. 2983), `decaf::net::SocketOutputStream` (p. 2988), `decaf::util::AbstractCollection<`  
`E >` (p. 159), `decaf::util::concurrent::ConcurrentStlMap< K, V, COMPARA-`  
`TOR >` (p. 1116), `decaf::util::concurrent::Mutex` (p. 2389), `decaf::util::StlMap<`  
`K, V, COMPARATOR >` (p. 3042), `decaf::util::StlQueue< T >`  
(p. 3050), `decaf::util::AbstractCollection< transport::TransportListener *`  
`>` (p. 159), `decaf::util::AbstractCollection< Pointer< Synchronization >`  
`>` (p. 159), `decaf::util::AbstractCollection< CompositeTask * >` (p. 159),  
`decaf::util::AbstractCollection< URI >` (p. 159), `decaf::util::AbstractCollection<`  
`ActiveMQSession * >` (p. 159), `decaf::util::AbstractCollection< Pointer<`  
`DestinationInfo > >` (p. 159), `decaf::util::AbstractCollection< Primitive-`  
`ValueNode >` (p. 159), `decaf::util::AbstractCollection< Pointer< Com-`  
`mand > >` (p. 159), `decaf::util::AbstractCollection< Pointer< Back-`  
`upTransport > >` (p. 159), `decaf::util::concurrent::ConcurrentStlMap<`  
`Pointer< TransactionId >, Pointer< TransactionState >, Transac-`  
`tionId::COMPARATOR >` (p. 1116), `decaf::util::concurrent::ConcurrentStlMap<`  
`Pointer< MessageId >, Pointer< Message >, MessageId::COMPARATOR`  
`>` (p. 1116), `decaf::util::concurrent::ConcurrentStlMap< Pointer< Connec-`  
`tionId >, Pointer< ConnectionState >, ConnectionId::COMPARATOR`  
`>` (p. 1116), `decaf::util::concurrent::ConcurrentStlMap< Pointer< Con-`  
`sumerId >, Pointer< ConsumerState >, ConsumerId::COMPARATOR`  
`>` (p. 1116), `decaf::util::concurrent::ConcurrentStlMap< Pointer< SessionId`  
`>, Pointer< SessionState >, SessionId::COMPARATOR >` (p. 1116),  
`decaf::util::concurrent::ConcurrentStlMap< Pointer< ProducerId >, Pointer<`  
`ProducerState >, ProducerId::COMPARATOR >` (p. 1116), `decaf::util::StlMap<`  
`cms::Session *, SessionResolver * >` (p. 3042), `decaf::util::StlMap< std::string,`  
`WireFormatFactory * >` (p. 3042), `decaf::util::StlMap< std::string, PrimitiveVal-`  
`ueNode >` (p. 3042), `decaf::util::StlMap< std::string, cms::Queue * >` (p. 3042),  
`decaf::util::StlMap< Pointer< commands::ProducerId >, ActiveMQProducer *, com-`  
`mands::ProducerId::COMPARATOR >` (p. 3042), `decaf::util::StlMap< std::string,`  
`CachedConsumer * >` (p. 3042), `decaf::util::StlMap< Pointer< commands::ConsumerId`  
`>, ActiveMQConsumer *, commands::ConsumerId::COMPARATOR >` (p. 3042),  
`decaf::util::StlMap< std::string, TransportFactory * >` (p. 3042), `decaf::util::StlMap<`  
`int, Pointer< Command > >` (p. 3042), `decaf::util::StlMap< Pointer< com-`  
`mands::ConsumerId >, Dispatcher *, commands::ConsumerId::COMPARATOR`  
`>` (p. 3042), `decaf::util::StlMap< std::string, CachedProducer * >` (p. 3042),  
`decaf::util::StlMap< std::string, cms::Topic * >` (p. 3042), `decaf::util::StlQueue<`  
`Pointer< Transport > >` (p. 3050), `decaf::util::StlQueue< Pointer< MessageDis-`  
`patch > >` (p. 3050), `decaf::util::StlQueue< Task >` (p. 3050), `decaf::util::StlQueue<`  
`Pointer< Command > >` (p. 3050), and `decaf::util::StlQueue< decaf::lang::Pointer<`  
`commands::MessageDispatch > >` (p. 3050).

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/Synchronizable.h`



## 6.666 decaf::internal::util::concurrent::SynchronizableImpl Class Reference

A convenience class used by some Decaf classes to implement the Synchronizable interface when there is no issues related to multiple inheritance.

#include <src/main/decaf/internal/util/concurrent/SynchronizableImpl.h> Inheritance diagram for decaf::internal::util::concurrent::SynchronizableImpl:

### Public Member Functions

- **SynchronizableImpl** ()
- virtual **~SynchronizableImpl** ()
- virtual void **lock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Locks the object.*
- virtual bool **tryLock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Attempts to Lock the object, if the lock is already held by another thread than this method returns false.*
- virtual void **unlock** () throw ( decaf::lang::exceptions::RuntimeException )  
*Unlocks the object.*
- virtual void **wait** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **wait** (long long millisecs, int nanos) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException )  
*Waits on a signal from this object, which is generated by a call to Notify.*
- virtual void **notify** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals a waiter on this object that it can now wake up and continue.*
- virtual void **notifyAll** () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException )  
*Signals the waiters on this object that it can now wake up and continue.*

### 6.666.1 Detailed Description

A convenience class used by some Decaf classes to implement the Synchronizable interface when there is no issues related to multiple inheritance.

Since:

1.0

### 6.666.2 Constructor & Destructor Documentation

**6.666.2.1** `decaf::internal::util::concurrent::SynchronizableImpl::SynchronizableImpl()`

**6.666.2.2** `virtual decaf::internal::util::concurrent::SynchronizableImpl::~SynchronizableImpl() [virtual]`

### 6.666.3 Member Function Documentation

**6.666.3.1** `virtual void decaf::internal::util::concurrent::SynchronizableImpl::lock() throw ( decaf::lang::exceptions::RuntimeException ) [virtual]`

Locks the object.

Exceptions:

*RuntimeException* if an error occurs while locking the object.

Implements `decaf::util::concurrent::Synchronizable` (p. 3123).

**6.666.3.2** `virtual void decaf::internal::util::concurrent::SynchronizableImpl::notify() throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [virtual]`

Signals a waiter on this object that it can now wake up and continue. Must have this object locked before calling.

Exceptions:

*IllegalMonitorStateException* - if the current thread is not the owner of the the Synchronizable Object.

*RuntimeException* if an error occurs while notifying one of the waiting threads.

Implements `decaf::util::concurrent::Synchronizable` (p. 3124).

**6.666.3.3** `virtual void decaf::internal::util::concurrent::SynchronizableImpl::notifyAll() throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException ) [virtual]`

Signals the waiters on this object that it can now wake up and continue. Must have this object locked before calling.

**Exceptions:**

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

***RuntimeException*** if an error occurs while notifying the waiting threads.

Implements **decaf::util::concurrent::Synchronizable** (p. 3125).

### 6.666.3.4 virtual bool decaf::internal::util::concurrent::SynchronizableImpl::tryLock() throw ( decaf::lang::exceptions::RuntimeException ) [virtual]

Attempts to Lock the object, if the lock is already held by another thread than this method returns false.

**Returns:**

true if the lock was acquired, false if it is already held by another thread.

**Exceptions:**

***RuntimeException*** if an error occurs while locking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3126).

### 6.666.3.5 virtual void decaf::internal::util::concurrent::SynchronizableImpl::unlock() throw ( decaf::lang::exceptions::RuntimeException ) [virtual]

Unlocks the object.

**Exceptions:**

***RuntimeException*** if an error occurs while unlocking the object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3127).

### 6.666.3.6 virtual void decaf::internal::util::concurrent::SynchronizableImpl::wait(long long *millisecs*, int *nanos*) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [virtual]

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval. This method is similar to the one argument wait function except that it add a finer grained control over the amount of time that it waits by adding in the additional nanosecond argument.

NOTE: The ability to wait accurately at a nanosecond scale depends on the platform and OS that the Decaf API is running on, some systems do not provide an accurate enough clock to provide this level of granularity.

**Parameters:**

***millisecs*** the time in milliseconds to wait, or WAIT\_INFINITE

*nanos* additional time in nanoseconds with a range of 0-999999

#### Exceptions:

***IllegalArgumentException*** if an error occurs or the *nanos* argument is not in the range of [0-999999]

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3128).

**6.666.3.7** `virtual void decaf::internal::util::concurrent::SynchronizableImpl::wait (long long millisecs) throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling. This wait will timeout after the specified time interval.

#### Parameters:

*millisecs* the time in milliseconds to wait, or WAIT\_INFINITE

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3130).

**6.666.3.8** `virtual void decaf::internal::util::concurrent::SynchronizableImpl::wait () throw ( decaf::lang::exceptions::RuntimeException, decaf::lang::exceptions::IllegalMonitorStateException, decaf::lang::exceptions::InterruptedException ) [virtual]`

Waits on a signal from this object, which is generated by a call to Notify. Must have this object locked before calling.

#### Exceptions:

***RuntimeException*** if an error occurs while waiting on the object.

***InterruptedException*** if the wait is interrupted before it completes.

***IllegalMonitorStateException*** - if the current thread is not the owner of the the Synchronizable Object.

Implements **decaf::util::concurrent::Synchronizable** (p. 3131).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/util/concurrent/SynchronizableImpl.h`

## 6.667 activemq::core::Synchronization Class Reference

Transacted Object **Synchronization** (p. 3137), used to sync the events of a Transaction with the items in the Transaction.

```
#include <src/main/activemq/core/Synchronization.h>
```

### Public Member Functions

- virtual **~Synchronization** ()
- virtual void **beforeEnd** ()=0 throw ( exceptions::ActiveMQException )
- virtual void **afterCommit** ()=0 throw ( exceptions::ActiveMQException )
- virtual void **afterRollback** ()=0 throw ( exceptions::ActiveMQException )

### 6.667.1 Detailed Description

Transacted Object **Synchronization** (p. 3137), used to sync the events of a Transaction with the items in the Transaction.

### 6.667.2 Constructor & Destructor Documentation

**6.667.2.1** virtual activemq::core::Synchronization::~~Synchronization () [inline, virtual]

### 6.667.3 Member Function Documentation

**6.667.3.1** virtual void activemq::core::Synchronization::afterCommit () throw ( exceptions::ActiveMQException ) [pure virtual]

**6.667.3.2** virtual void activemq::core::Synchronization::afterRollback () throw ( exceptions::ActiveMQException ) [pure virtual]

**6.667.3.3** virtual void activemq::core::Synchronization::beforeEnd () throw ( exceptions::ActiveMQException ) [pure virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/core/**Synchronization.h**

## 6.668 decaf::util::concurrent::SynchronousQueue< E > Class Template Reference

A `BlockingQueue` `blocking queue` in which each insert operation must wait for a corresponding remove operation by another thread, and vice versa.

```
#include <src/main/decaf/util/concurrent/SynchronousQueue.h>
```

### Data Structures

- class `EmptyIterator`

### Public Member Functions

- `SynchronousQueue` ()
- virtual `~SynchronousQueue` ()
- virtual void **put** (const E &value) throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException )  
*Adds the specified element to this queue, waiting if necessary for another thread to receive it.*
- virtual bool **offer** (const E &e, long timeout, const **TimeUnit** &unit) throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException )  
*Inserts the specified element into this queue, waiting if necessary up to the specified wait time for another thread to receive it.*
- virtual bool **offer** (const E &value) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException )  
*Inserts the specified element into this queue, if another thread is waiting to receive it.*
- virtual E **take** () throw ( decaf::lang::exceptions::InterruptedException )  
*Retrieves and removes the head of this queue, waiting if necessary for another thread to insert it.*
- virtual bool **poll** (E &result, long long timeout, const **TimeUnit** &unit) throw ( decaf::lang::exceptions::InterruptedException )  
*Retrieves and removes the head of this queue, waiting if necessary up to the specified wait time, for another thread to insert it.*
- virtual bool **poll** (E &result)  
*Retrieves and removes the head of this queue, if another thread is currently making an element available.*
- virtual bool **equals** (const **Collection**< E > &value) const
- virtual `decaf::util::Iterator`< E > \* **iterator** ()
- virtual `decaf::util::Iterator`< E > \* **iterator** () const
- virtual bool **isEmpty** () const
- virtual std::size\_t **size** () const
- virtual int **remainingCapacity** () const

- virtual void **clear** () throw ( lang::exceptions::UnsupportedOperationException )
- virtual bool **contains** (const E &value DECAF\_UNUSED) const throw ( lang::Exception )
- virtual bool **containsAll** (const **Collection**< E > &collection) const throw ( lang::Exception )
- virtual bool **remove** (const E &value DECAF\_UNUSED) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )
- virtual bool **removeAll** (const **Collection**< E > &collection DECAF\_UNUSED) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )
- virtual bool **retainAll** (const **Collection**< E > &collection DECAF\_UNUSED) throw ( lang::exceptions::UnsupportedOperationException, lang::exceptions::IllegalArgumentException )
- virtual bool **peek** (E &result DECAF\_UNUSED) const
- virtual std::vector< E > **toArray** () const
- virtual std::size\_t **drainTo** (**Collection**< E > &c) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException )
- virtual std::size\_t **drainTo** (**Collection**< E > &c, std::size\_t maxElements) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException )

### 6.668.1 Detailed Description

**template<typename E> class decaf::util::concurrent::SynchronousQueue< E >**

A `BlockingQueue` `blocking queue` in which each insert operation must wait for a corresponding remove operation by another thread, and vice versa. A synchronous queue does not have any internal capacity, not even a capacity of one. You cannot **peek** at a synchronous queue because an element is only present when you try to remove it; you cannot insert an element (using any method) unless another thread is trying to remove it; you cannot iterate as there is nothing to iterate. The *head* of the queue is the element that the first queued inserting thread is trying to add to the queue; if there is no such queued thread then no element is available for removal and `poll()` (p.3142) will return `null`. For purposes of other **Collection** (p.1054) methods (for example **contains**), a **SynchronousQueue** (p.3138) acts as an empty collection. This queue does not permit `null` elements.

Synchronous queues are similar to rendezvous channels used in CSP and Ada. They are well suited for handoff designs, in which an object running in one thread must sync up with an object running in another thread in order to hand it some information, event, or task.

This class supports an optional fairness policy for ordering waiting producer and consumer threads. By default, this ordering is not guaranteed. However, a queue constructed with fairness set to `true` grants threads access in FIFO order.

This class and its iterator implement all of the *optional* methods of the **Collection** (p.1054) and **Iterator** (p.1832) interfaces.

**Since:**

1.0

## 6.668.2 Constructor & Destructor Documentation

**6.668.2.1** `template<typename E > decaf::util::concurrent::SynchronousQueue< E >::SynchronousQueue () [inline]`

**6.668.2.2** `template<typename E > virtual decaf::util::concurrent::SynchronousQueue< E >::~~SynchronousQueue () [inline, virtual]`

## 6.668.3 Member Function Documentation

**6.668.3.1** `template<typename E > virtual void decaf::util::concurrent::SynchronousQueue< E >::clear () throw ( lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

**6.668.3.2** `template<typename E > virtual bool decaf::util::concurrent::SynchronousQueue< E >::contains (const E &value DECAF_UNUSED) const throw ( lang::Exception ) [inline, virtual]`

**6.668.3.3** `template<typename E > virtual bool decaf::util::concurrent::SynchronousQueue< E >::containsAll (const Collection< E > & collection) const throw ( lang::Exception ) [inline, virtual]`

**6.668.3.4** `template<typename E > virtual std::size_t decaf::util::concurrent::SynchronousQueue< E >::drainTo (Collection< E > & c, std::size_t maxElements) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException ) [inline, virtual]`

References `decaf::util::concurrent::SynchronousQueue< E >::poll()`.

**6.668.3.5** `template<typename E > virtual std::size_t decaf::util::concurrent::SynchronousQueue< E >::drainTo (Collection< E > & c) throw ( decaf::lang::exceptions::UnsupportedOperationException, decaf::lang::exceptions::IllegalArgumentException ) [inline, virtual]`

References `decaf::util::concurrent::SynchronousQueue< E >::poll()`.



- 6.668.3.6** `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::equals  
(const Collection< E > & value) const [inline, virtual]`
- 6.668.3.7** `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::isEmpty  
( ) const [inline, virtual]`
- 6.668.3.8** `template<typename E > virtual decaf::util::Iterator<E>*  
decaf::util::concurrent::SynchronousQueue< E >::iterator ( ) const  
[inline, virtual]`
- 6.668.3.9** `template<typename E > virtual decaf::util::Iterator<E>*  
decaf::util::concurrent::SynchronousQueue< E >::iterator ( ) [inline,  
virtual]`
- 6.668.3.10** `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::offer  
(const E & value) throw ( decaf::lang::exceptions::NullPointerException,  
decaf::lang::exceptions::IllegalArgumentException ) [inline, virtual]`

Inserts the specified element into this queue, if another thread is waiting to receive it.

**Parameters:**

*value* the element to add to the **Queue** (p. 2671)

**Returns:**

true if the element was added to this queue, else false

**Exceptions:**

**NullPointerException** if the **Queue** (p. 2671) implementation does not allow Null values to be inserted into the **Queue** (p. 2671).

**IllegalArgumentException** if some property of the specified element prevents it from being added to this queue

- 6.668.3.11** `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::offer  
(const E & e, long timeout, const TimeUnit & unit)  
throw ( decaf::lang::exceptions::InterruptedException,  
decaf::lang::exceptions::NullPointerException, de-  
cafe::lang::exceptions::IllegalArgumentException ) [inline,  
virtual]`

Inserts the specified element into this queue, waiting if necessary up to the specified wait time for another thread to receive it.

**Returns:**

true if successful, or false if the specified waiting time elapses before a consumer appears.

**Exceptions:**

**InterruptedException**

*NullPointerException*

*IllegalArgumentException*

**6.668.3.12**    `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::peek (E  
&result DECAF_UNUSED) const [inline, virtual]`

**6.668.3.13**    `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::poll (E  
& result) [inline, virtual]`

Retrieves and removes the head of this queue, if another thread is currently making an element available.

**Parameters:**

*result* a reference to the value where the head of the **Queue** (p. 2671) should be copied to.

**Returns:**

true if the head of the **Queue** (p. 2671) was copied to the result param or false if no value could be returned.

**6.668.3.14**    `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::poll (E  
& result, long long timeout, const TimeUnit & unit) throw (  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Retrieves and removes the head of this queue, waiting if necessary up to the specified wait time, for another thread to insert it.

**Parameters:**

*result* a reference to the value where the head of the **Queue** (p. 2671) should be copied to.

*timeout* the time that the method should block if there is no element available to return.

*unit* the Time Units that the timeout value represents.

**Returns:**

true if the head of the **Queue** (p. 2671) was copied to the result param or false if no value could be returned.

Referenced by `decaf::util::concurrent::SynchronousQueue< E >::drainTo()`.

**6.668.3.15**    `template<typename E > virtual void  
decaf::util::concurrent::SynchronousQueue< E >::put  
(const E & value) throw ( decaf::lang::exceptions::InterruptedException,  
decaf::lang::exceptions::NullPointerException, de-  
cafe::lang::exceptions::IllegalArgumentException ) [inline,  
virtual]`

Adds the specified element to this queue, waiting if necessary for another thread to receive it.

**Parameters:**

*value* the element to add to the **Queue** (p.2671).

**Exceptions:**

*InterruptedException*

*NullPointerException*

*IllegalArgumentException*

- 6.668.3.16 `template<typename E > virtual int  
decaf::util::concurrent::SynchronousQueue< E  
>::remainingCapacity () const [inline, virtual]`
- 6.668.3.17 `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E >::remove  
(const E &value DECAF_UNUSED) throw (  
lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException ) [inline, virtual]`
- 6.668.3.18 `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E  
>::removeAll (const Collection< E > &collection DECAF_UNUSED)  
throw ( lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException ) [inline, virtual]`
- 6.668.3.19 `template<typename E > virtual bool  
decaf::util::concurrent::SynchronousQueue< E  
>::retainAll (const Collection< E > &collection DECAF_UNUSED)  
throw ( lang::exceptions::UnsupportedOperationException,  
lang::exceptions::IllegalArgumentException ) [inline, virtual]`
- 6.668.3.20 `template<typename E > virtual std::size_t  
decaf::util::concurrent::SynchronousQueue< E >::size () const [inline,  
virtual]`
- 6.668.3.21 `template<typename E > virtual E  
decaf::util::concurrent::SynchronousQueue< E >::take ()  
throw ( decaf::lang::exceptions::InterruptedException ) [inline,  
virtual]`

Retrieves and removes the head of this queue, waiting if necessary for another thread to insert it.

**Returns:**

the head of this queue

**Exceptions:**

*InterruptedException*

```
6.668.3.22  template<typename E > virtual std::vector<E>
             decaf::util::concurrent::SynchronousQueue< E >::toArray () const
             [inline, virtual]
```

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/SynchronousQueue.h`

## 6.669 decaf::lang::System Class Reference

```
#include <src/main/decaf/lang/System.h>
```

### Public Member Functions

- **System** ()
- virtual **~System** ()

### Static Public Member Functions

- static const **util::Map**< std::string, std::string > & **getenv** () throw ( lang::Exception )  
*Enumerates the system environment and returns a map of env variable names to the string values they hold.*
- static std::string **getenv** (const std::string &name) throw ( lang::Exception )  
*Reads an environment value from the system and returns it as a string object.*
- static void **unsetenv** (const std::string &name) throw ( lang::Exception )  
*Clears a set env value if one is set.*
- static void **setenv** (const std::string &name, const std::string &value) throw ( lang::Exception )  
*Sets the specified system property to the value given.*
- static long long **currentTimeMillis** ()  
*Returns the current time in milliseconds.*
- static long long **nanoTime** ()  
*Returns the current value of the most precise available system timer, in nanoseconds.*
- static int **availableProcessors** ()  
*Returns the number of processors available for exection of Decaf Threads.*

### 6.669.1 Constructor & Destructor Documentation

**6.669.1.1 decaf::lang::System::System** ()

**6.669.1.2 virtual decaf::lang::System::~~System** () [inline, virtual]

### 6.669.2 Member Function Documentation

**6.669.2.1 static int decaf::lang::System::availableProcessors** () [static]

Returns the number of processors available for exection of Decaf Threads. This value may change during a particular execution of a Decaf based application. Applications that are sensitive to the number of available processors should therefore occasionally poll this property and adjust their resource usage appropriately.

**Returns:**

the number of available processors.

**6.669.2.2    static long long decaf::lang::System::currentTimeMillis ()    [static]**

Returns the current time in milliseconds. Note that while the unit of time of the return value is a millisecond, the granularity of the value depends on the underlying operating system and may be larger. For example, many operating systems measure time in units of tens of milliseconds.

See the description of the class Date for a discussion of slight discrepancies that may arise between "computer time" and coordinated universal time (UTC).

**Returns:**

the difference, measured in milliseconds, between the current time and midnight, January 1, 1970 UTC.

**6.669.2.3    static std::string decaf::lang::System::getenv (const std::string & name)  
              throw ( lang::Exception )    [static]**

Reads an environment value from the system and returns it as a string object.

**Parameters:**

*name* - the env var to read

**Returns:**

a string with the value from the var or ""

**Exceptions:**

*an Exception* (p. 1574) if an error occurs while reading the Env.

**6.669.2.4    static const util::Map<std::string, std::string>&  
              decaf::lang::System::getenv () throw ( lang::Exception )    [static]**

Enumerates the system environment and returns a map of env variable names to the string values they hold.

**Returns:**

A Map of all environment variables.

**Exceptions:**

*Exception* (p. 1574) if an error occurs

**6.669.2.5 static long long decaf::lang::System::nanoTime () [static]**

Returns the current value of the most precise available system timer, in nanoseconds. This method can only be used to measure elapsed time and is not related to any other notion of system or wall-clock time. The value returned represents nanoseconds since some fixed but arbitrary time (perhaps in the future, so values may be negative). This method provides nanosecond precision, but not necessarily nanosecond accuracy. No guarantees are made about how frequently values change. Differences in successive calls that span greater than approximately 292 years (263 nanoseconds) will not accurately compute elapsed time due to numerical overflow.

For example, to measure how long some code takes to execute:

```
long long startTime = System::nanoTime() (p.3147); // ... the code being measured ... long
long estimatedTime = System::nanoTime() (p.3147) - startTime;
```

**Returns:**

The current value of the system timer, in nanoseconds.

**6.669.2.6 static void decaf::lang::System::setenv (const std::string & name, const std::string & value) throw ( lang::Exception ) [static]**

Sets the specified system property to the value given.

**Parameters:**

*name* - name of the env val to set  
*value* - value to assign to name

**Exceptions:**

*an Exception* (p.1574) if an error occurs

**6.669.2.7 static void decaf::lang::System::unsetenv (const std::string & name) throw ( lang::Exception ) [static]**

Clears a set env value if one is set.

**Parameters:**

*name* - the env var to clear

**Exceptions:**

*an Exception* (p.1574) if an error occurs while reading the Env.

The documentation for this class was generated from the following file:

- src/main/decaf/lang/**System.h**

## 6.670 activemq::threads::Task Class Reference

Represents a unit of work that requires one or more iterations to complete.

#include <src/main/activemq/threads/Task.h> Inheritance diagram for activemq::threads::Task:

### Public Member Functions

- virtual `~Task()`
- virtual bool `iterate()`=0

*Perform one iteration of work, returns true if the task needs to run again to complete or false to indicate that the task is now complete.*

### 6.670.1 Detailed Description

Represents a unit of work that requires one or more iterations to complete.

Since:

3.0

### 6.670.2 Constructor & Destructor Documentation

**6.670.2.1** virtual `activemq::threads::Task::~~Task()` [inline, virtual]

### 6.670.3 Member Function Documentation

**6.670.3.1** virtual bool `activemq::threads::Task::iterate()` [pure virtual]

Perform one iteration of work, returns true if the task needs to run again to complete or false to indicate that the task is now complete.

**Returns:**

true if the task should be run again or false if the task has completed and the runner should wait for a wakeup call.

Implemented in `activemq::core::ActiveMQSessionExecutor` (p. 462), `activemq::threads::CompositeTaskRunner` (p. 1093), `activemq::transport::failover::BackupTransportPool` (p. 649), `activemq::transport::failover::CloseTransportsTask` (p. 1023), and `activemq::transport::failover::FailoverTransport` (p. 1618).

The documentation for this class was generated from the following file:

- `src/main/activemq/threads/Task.h`



## 6.671 decaf::util::concurrent::TaskListener Class Reference

```
#include <src/main/decaf/util/concurrent/TaskListener.h>
```

### Public Member Functions

- virtual `~TaskListener()`
- virtual void `onTaskComplete (lang::Runnable *task)=0`  
*Called when a queued task has completed, the task that finished is passed along for user consumption.*
- virtual void `onTaskException (lang::Runnable *task, lang::Exception &ex)=0`  
*Called when a queued task has thrown an exception while being run.*

### 6.671.1 Constructor & Destructor Documentation

- 6.671.1.1** virtual `decaf::util::concurrent::TaskListener::~~TaskListener()` [inline, virtual]

### 6.671.2 Member Function Documentation

- 6.671.2.1** virtual void `decaf::util::concurrent::TaskListener::onTaskComplete (lang::Runnable * task)` [pure virtual]

Called when a queued task has completed, the task that finished is passed along for user consumption.

#### Parameters:

*task* Runnable Pointer to the task that finished

- 6.671.2.2** virtual void `decaf::util::concurrent::TaskListener::onTaskException (lang::Runnable * task, lang::Exception & ex)` [pure virtual]

Called when a queued task has thrown an exception while being run. The Callee should assume that this was an unrecoverable exception and that this task is now defunct.

#### Parameters:

*task* Runnable Pointer to the task

*ex* The ActiveMQException that was thrown.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/TaskListener.h`

## 6.672 activemq::threads::TaskRunner Class Reference

#include <src/main/activemq/threads/TaskRunner.h> Inheritance diagram for activemq::threads::TaskRunner:

### Public Member Functions

- virtual `~TaskRunner ()`
- virtual void **shutdown** (unsigned int timeout)=0  
*Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.*
- virtual void **shutdown** ()=0  
*Shutdown once the task has finished and the TaskRunner's thread has exited.*
- virtual void **wakeup** ()=0  
*Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.*

### 6.672.1 Constructor & Destructor Documentation

**6.672.1.1** virtual `activemq::threads::TaskRunner::~~TaskRunner ()` [inline, virtual]

### 6.672.2 Member Function Documentation

**6.672.2.1** virtual void `activemq::threads::TaskRunner::shutdown ()` [pure virtual]

Shutdown once the task has finished and the TaskRunner's thread has exited.

Implemented in `activemq::threads::CompositeTaskRunner` (p.1093), and `activemq::threads::DedicatedTaskRunner` (p.1474).

**6.672.2.2** virtual void `activemq::threads::TaskRunner::shutdown (unsigned int timeout)` [pure virtual]

Shutdown after a timeout, does not guarantee that the task's iterate method has completed and the thread halted.

#### Parameters:

*timeout* - Time in Milliseconds to wait for the task to stop.

Implemented in `activemq::threads::CompositeTaskRunner` (p.1094), and `activemq::threads::DedicatedTaskRunner` (p.1474).

**6.672.2.3 virtual void activemq::threads::TaskRunner::wakeup () [pure virtual]**

Signal the **TaskRunner** (p. 3150) to wakeup and execute another iteration cycle on the task, the **Task** (p. 3148) instance will be run until its iterate method has returned false indicating it is done.

Implemented in **activemq::threads::CompositeTaskRunner** (p. 1094), and **activemq::threads::DedicatedTaskRunner** (p. 1474).

The documentation for this class was generated from the following file:

- src/main/activemq/threads/**TaskRunner.h**

## 6.673 decaf::net::TcpSocket Class Reference

Platform-independent implementation of the socket interface.

#include <src/main/decaf/net/TcpSocket.h> Inheritance diagram for decaf::net::TcpSocket:

### Public Member Functions

- **TcpSocket** () throw ( SocketException )  
*Construct a non-connected socket.*
- **TcpSocket** (SocketHandle socketHandle)  
*Construct a connected or bound socket based on given socket handle.*
- virtual ~**TcpSocket** ()  
*Releases the socket handle but not gracefully shut down the connection.*
- **SocketHandle** **getSocketHandle** ()  
*Gets the handle for the socket.*
- void **connect** (const char \*host, int port, int timeout) throw ( SocketException )  
*Connects to the specified destination.*
- virtual void **connect** (const char \*host, int port) throw ( SocketException )  
*Connects to the specified destination.*
- virtual bool **isConnected** () const  
*Indicates whether or not this socket is connected to a destination.*
- virtual **io::InputStream** \* **getInputStream** ()  
*Gets the InputStream for this socket.*
- virtual **io::OutputStream** \* **getOutputStream** ()  
*Gets the OutputStream for this socket.*
- virtual int **getSoLinger** () const throw ( SocketException )  
*Gets the linger time.*
- virtual void **setSoLinger** (int linger) throw ( SocketException )  
*Sets the linger time.*
- virtual bool **getKeepAlive** () const throw ( SocketException )  
*Gets the keep alive flag.*
- virtual void **setKeepAlive** (bool keepAlive) throw ( SocketException )  
*Enables/disables the keep alive flag.*
- virtual int **getReceiveBufferSize** () const throw ( SocketException )

*Gets the receive buffer size.*

- virtual void **setReceiveBufferSize** (int size) throw ( SocketException )  
*Sets the receive buffer size.*
- virtual bool **getReuseAddress** () const throw ( SocketException )  
*Gets the reuse address flag.*
- virtual void **setReuseAddress** (bool reuse) throw ( SocketException )  
*Sets the reuse address flag.*
- virtual int **getSendBufferSize** () const throw ( SocketException )  
*Gets the send buffer size.*
- virtual void **setSendBufferSize** (int size) throw ( SocketException )  
*Sets the send buffer size.*
- virtual int **getSoTimeout** () const throw ( SocketException )  
*Gets the timeout for socket operations.*
- virtual void **setSoTimeout** (int timeout) throw (SocketException)  
*Sets the timeout for socket operations.*
- virtual void **close** () throw ( decaf::io::IOException )  
*Closes this object and deallocates the appropriate resources.*
- virtual bool **getTcpNoDelay** () const throw ( lang::Exception )  
*Gets the Status of the TCP\_NODELAY param for this socket as a Bool.*
- virtual void **setTcpNoDelay** (bool value) throw ( lang::Exception )  
*Sets the Status of the TCP\_NODELAY param for this socket as a Bool.*

## Protected Member Functions

- void **checkResult** (apr\_status\_t value) const throw (SocketException)

### 6.673.1 Detailed Description

Platform-independent implementation of the socket interface.

### 6.673.2 Constructor & Destructor Documentation

#### 6.673.2.1 decaf::net::TcpSocket::TcpSocket () throw ( SocketException )

Construct a non-connected socket.

#### Exceptions:

*SocketException* (p. 2972) thrown on windows if the static initialization call to WSAS-tartup was not successful.

### 6.673.2.2 decaf::net::TcpSocket::TcpSocket (SocketHandle *socketHandle*)

Construct a connected or bound socket based on given socket handle.

### Parameters:

***socketHandle*** a socket handle to wrap in the object

### 6.673.2.3 virtual decaf::net::TcpSocket::~~TcpSocket () [virtual]

Releases the socket handle but not gracefully shut down the connection.

### 6.673.3 Member Function Documentation

```
6.673.3.1 void decaf::net::TcpSocket::checkResult (apr_status_t value) const
throw (SocketException) [protected]
```

```
6.673.3.2  virtual void decaf::net::TcpSocket::close () throw ( decaf::io::IOException
           ) [virtual]
```

Closes this object and deallocates the appropriate resources.

**Exceptions:**

### *IOException*

Implements **decaf::io::Closeable** (p. 1019).

```
6.673.3.3 virtual void decaf::net::TcpSocket::connect (const char * host, int port)
throw ( SocketException ) [inline, virtual]
```

Connects to the specified destination. Closes this socket if connected to another destination.

### Parameters:

**host** The host of the server to connect to.

**port** The port of the server to connect to.

**Exceptions:**

**SocketException** (p. 2972) Thrown if a failure occurred in the connect.

Implements **decaf::net::Socket** (p. 2965).

```

6.673.3.4 void decaf::net::TcpSocket::connect (const char * host, int port, int
timeout) throw ( SocketException )

```

Connects to the specified destination. Closes this socket if connected to another destination.

## Parameters:

**host** The host of the server to connect to.

*port* The port of the server to connect to.

*timeout* of socket in microseconds

**Exceptions:**

*SocketException* (p. 2972) Thrown if a failure occurred in the connect.

**6.673.3.5 virtual io::InputStream\* decaf::net::TcpSocket::getInputStream ()**  
[virtual]

Gets the InputStream for this socket.

**Returns:**

The InputStream for this socket. NULL if not connected.

Implements **decaf::net::Socket** (p. 2966).

**6.673.3.6 virtual bool decaf::net::TcpSocket::getKeepAlive () const throw (**  
**SocketException )** [virtual]

Gets the keep alive flag.

**Returns:**

True if keep alive is enabled.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2966).

**6.673.3.7 virtual io::OutputStream\* decaf::net::TcpSocket::getOutputStream ()**  
[virtual]

Gets the OutputStream for this socket.

**Returns:**

the OutputStream for this socket. NULL if not connected.

Implements **decaf::net::Socket** (p. 2966).

**6.673.3.8 virtual int decaf::net::TcpSocket::getReceiveBufferSize () const throw (**  
**SocketException )** [virtual]

Gets the receive buffer size.

**Returns:**

the receive buffer size in bytes.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2966).

**6.673.3.9** **virtual bool decaf::net::TcpSocket::getReuseAddress () const throw ( SocketException )** [virtual]

Gets the reuse address flag.

**Returns:**

True if the address can be reused.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).

**6.673.3.10** **virtual int decaf::net::TcpSocket::getSendBufferSize () const throw ( SocketException )** [virtual]

Gets the send buffer size.

**Returns:**

the size in bytes of the send buffer.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).

**6.673.3.11** **SocketHandle decaf::net::TcpSocket::getSocketHandle ()** [inline]

Gets the handle for the socket.

**Returns:**

SocketHandle for this **Socket** (p. 2964), can be NULL

**6.673.3.12** **virtual int decaf::net::TcpSocket::getSoLinger () const throw ( SocketException )** [virtual]

Gets the linger time.

**Returns:**

The linger time in seconds.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2967).



**6.673.3.13** `virtual int decaf::net::TcpSocket::getSoTimeout () const throw ( SocketException ) [virtual]`

Gets the timeout for socket operations.

**Returns:**

The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to retrieve the information.

Implements **decaf::net::Socket** (p. 2967).

**6.673.3.14** `virtual bool decaf::net::TcpSocket::getTcpNoDelay () const throw ( lang::Exception ) [virtual]`

Gets the Status of the TCP\_NODELAY param for this socket as a Bool.

**Returns:**

true if TCP\_NODELAY is enabled

**Exceptions:**

*Exception*

**6.673.3.15** `virtual bool decaf::net::TcpSocket::isConnected () const [inline, virtual]`

Indicates whether or not this socket is connected to a destination.

**Returns:**

true if connected

Implements **decaf::net::Socket** (p. 2968).

**6.673.3.16** `virtual void decaf::net::TcpSocket::setKeepAlive (bool keepAlive) throw ( SocketException ) [virtual]`

Enables/disables the keep alive flag.

**Parameters:**

*keepAlive* If true, enables the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements **decaf::net::Socket** (p. 2968).

**6.673.3.17** `virtual void decaf::net::TcpSocket::setReceiveBufferSize (int size) throw ( SocketException )` [virtual]

Sets the receive buffer size.

**Parameters:**

*size* Number of bytes to set the receive buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2968).

**6.673.3.18** `virtual void decaf::net::TcpSocket::setReuseAddress (bool reuse) throw ( SocketException )` [virtual]

Sets the reuse address flag.

**Parameters:**

*reuse* If true, sets the flag.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2969).

**6.673.3.19** `virtual void decaf::net::TcpSocket::setSendBufferSize (int size) throw ( SocketException )` [virtual]

Sets the send buffer size.

**Parameters:**

*size* The number of bytes to set the send buffer to.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2969).

**6.673.3.20** `virtual void decaf::net::TcpSocket::setSoLinger (int linger) throw ( SocketException )` [virtual]

Sets the linger time.

**Parameters:**

*linger* The linger time in seconds. If 0, linger is off.

**Exceptions:**

*SocketException* (p. 2972) if the operation fails.

Implements `decaf::net::Socket` (p. 2969).

**6.673.3.21** virtual void decaf::net::TcpSocket::setSoTimeout (int *timeout*) throw (SocketException) [virtual]

Sets the timeout for socket operations.

**Parameters:**

*timeout* The timeout in milliseconds for socket operations.

**Exceptions:**

*SocketException* (p. 2972) Thrown if unable to set the information.

Implements decaf::net::Socket (p. 2969).

**6.673.3.22** virtual void decaf::net::TcpSocket::setTcpNoDelay (bool *value*) throw (lang::Exception) [virtual]

Sets the Status of the TCP\_NODELAY param for this socket as a Bool.

**Parameters:**

*value* - true if TCP\_NODELAY is to be enabled

**Exceptions:**

*Exception*

The documentation for this class was generated from the following file:

- src/main/decaf/net/**TcpSocket.h**

## 6.674 activemq::transport::tcp::TcpTransport Class Reference

Implements a TCP/IP based transport filter, this transport is meant to wrap an instance of an **IOTransport** (p. 1823).

#include <src/main/activemq/transport/tcp/TcpTransport.h> Inheritance diagram for activemq::transport::tcp::TcpTransport:

### Public Member Functions

- **TcpTransport** (const **decaf::util::Properties** &properties, const **Pointer**< **Transport** > &next)  
*Constructor.*
- **TcpTransport** (const **decaf::net::URI** &uri, const **decaf::util::Properties** &properties, const **Pointer**< **Transport** > &next)  
*Constructor.*
- virtual ~**TcpTransport** ()
- virtual void **close** () throw ( **decaf::io::IOException** )  
*Delegates to the superclass and then closes the socket.*
- virtual bool **isFaultTolerant** () const  
*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*
- virtual bool **isConnected** () const  
*Is the **Transport** (p. 3273) Connected to its Broker.*
- virtual bool **isClosed** () const  
*Has the **Transport** (p. 3273) been shutdown and no longer usable.*

### 6.674.1 Detailed Description

Implements a TCP/IP based transport filter, this transport is meant to wrap an instance of an **IOTransport** (p. 1823). The lower level transport should take care of managing stream reads and writes.

### 6.674.2 Constructor & Destructor Documentation

- #### 6.674.2.1 activemq::transport::tcp::TcpTransport::TcpTransport (const decaf::util::Properties & *properties*, const **Pointer**< **Transport** > & *next*)

Constructor.

**Parameters:**

*properties* the configuration properties for this transport  
*next* the next transport in the chain

**6.674.2.2** `activemq::transport::tcp::TcpTransport::TcpTransport (const decaf::net::URI & uri, const decaf::util::Properties & properties, const Pointer< Transport > & next)`

Constructor.

**Parameters:**

*uri* - The URI containing the host to connect to.  
*properties* the configuration properties for this transport  
*next* the next transport in the chain

**6.674.2.3** `virtual activemq::transport::tcp::TcpTransport::~~TcpTransport ()`  
 [virtual]

**6.674.3 Member Function Documentation**

**6.674.3.1** `virtual void activemq::transport::tcp::TcpTransport::close () throw ( decaf::io::IOException )` [virtual]

Delegates to the superclass and then closes the socket.

**Exceptions:**

*IOException* if errors occur.

Reimplemented from `activemq::transport::TransportFilter` (p. 3283).

**6.674.3.2** `virtual bool activemq::transport::tcp::TcpTransport::isClosed () const`  
 [inline, virtual]

Has the **Transport** (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the **Transport** (p. 3273)

Reimplemented from `activemq::transport::TransportFilter` (p. 3284).

**6.674.3.3** `virtual bool activemq::transport::tcp::TcpTransport::isConnected () const`  
 [inline, virtual]

Is the **Transport** (p. 3273) Connected to its Broker.

**Returns:**

true if a connection has been made.

Reimplemented from `activemq::transport::TransportFilter` (p. 3284).

#### 6.674.3.4 `virtual bool activemq::transport::tcp::TcpTransport::isFaultTolerant ()` `const [inline, virtual]`

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

##### Returns:

true if the **Transport** (p. 3273) is fault tolerant.

Reimplemented from **activemq::transport::TransportFilter** (p. 3284).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/tcp/TcpTransport.h`

## 6.675 activemq::transport::tcp::TcpTransportFactory Class Reference

Factory Responsible for creating the **TcpTransport** (p. 3160).

#include <src/main/activemq/transport/tcp/TcpTransportFactory.h> Inheritance diagram for activemq::transport::tcp::TcpTransportFactory:

### Public Member Functions

- virtual **~TcpTransportFactory** ()
- virtual **Pointer< Transport > create** (const **decaf::net::URI** &location) throw ( exceptions::ActiveMQException )

*Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.*

- virtual **Pointer< Transport > createComposite** (const **decaf::net::URI** &location) throw ( exceptions::ActiveMQException )

*Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.*

### Protected Member Functions

- virtual **Pointer< Transport > doCreateComposite** (const **decaf::net::URI** &location, const **Pointer< wireformat::WireFormat >** &wireFormat, const **decaf::util::Properties** &properties) throw ( exceptions::ActiveMQException )

*Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.*

#### 6.675.1 Detailed Description

Factory Responsible for creating the **TcpTransport** (p. 3160).

## 6.675.2 Constructor & Destructor Documentation

**6.675.2.1** `virtual  
activemq::transport::tcp::TcpTransportFactory::~~TcpTransportFactory ()  
[inline, virtual]`

## 6.675.3 Member Function Documentation

**6.675.3.1** `virtual Pointer<Transport> ac-  
tivemq::transport::tcp::TcpTransportFactory::create (const  
decaf::net::URI & location) throw ( exceptions::ActiveMQException )  
[virtual]`

Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements `activemq::transport::TransportFactory` (p. 3279).

**6.675.3.2** `virtual Pointer<Transport> ac-  
tivemq::transport::tcp::TcpTransportFactory::createComposite (const  
decaf::net::URI & location) throw ( exceptions::ActiveMQException )  
[virtual]`

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.

### Parameters:

*location* - URI location to connect to plus any properties to assign.

### Exceptions:

*ActiveMQException* if an error occurs

Implements `activemq::transport::TransportFactory` (p. 3280).

**6.675.3.3** `virtual Pointer<Transport> ac-  
tivemq::transport::tcp::TcpTransportFactory::doCreateComposite (const  
decaf::net::URI & location, const Pointer< wireformat::WireFormat  
> & wireFormat, const decaf::util::Properties & properties) throw ( exceptions::ActiveMQException ) [protected, virtual]`

Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.



**Parameters:**

*location* - URI location to connect to.

*wireFormat* - the assigned WireFormat for the new **Transport** (p. 3273).

*properties* - Properties to apply to the transport.

**Returns:**

new Pointer to a **TcpTransport** (p. 3160).

**Exceptions:**

*ActiveMQException* if an error occurs

The documentation for this class was generated from the following file:

- src/main/activemq/transport/tcp/**TcpTransportFactory.h**

## 6.676 cms::TemporaryQueue Class Reference

Defines a Temporary **Queue** (p. 2674) based **Destination** (p. 1480).

#include <src/main/cms/TemporaryQueue.h> Inheritance diagram for cms::TemporaryQueue:

### Public Member Functions

- virtual **~TemporaryQueue** ()
- virtual std::string **getQueueName** () const =0 throw ( CMSEException )  
*Gets the name of this queue.*
- virtual void **destroy** ()=0 throw ( CMSEException )  
*Destroy's the Temporary **Destination** (p. 1480) at the Provider.*

### 6.676.1 Detailed Description

Defines a Temporary **Queue** (p. 2674) based **Destination** (p. 1480). A **TemporaryQueue** (p. 3166) is a special type of **Queue** (p. 2674) **Destination** (p. 1480) that can only be consumed from the **Connection** (p. 1131) which created it. TemporaryQueues are most commonly used as the reply to address for Message's that implement the request response pattern.

A **TemporaryQueue** (p. 3166) is guaranteed to exist at the Provider only for the lifetime of the **Connection** (p. 1131) that created it.

Since:

1.0

### 6.676.2 Constructor & Destructor Documentation

**6.676.2.1** virtual cms::TemporaryQueue::~~TemporaryQueue () [inline, virtual]

### 6.676.3 Member Function Documentation

**6.676.3.1** virtual void cms::TemporaryQueue::destroy () throw ( CMSEException )  
 [pure virtual]

Destroy's the Temporary **Destination** (p. 1480) at the Provider.

Exceptions:

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in **activemq::commands::ActiveMQTempQueue** (p. 525).

**6.676.3.2** `virtual std::string cms::TemporaryQueue::getQueueName () const throw ( CMSEException ) [pure virtual]`

Gets the name of this queue.

**Returns:**

The queue name.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQTempQueue` (p. 526).

The documentation for this class was generated from the following file:

- `src/main/cms/TemporaryQueue.h`

## 6.677 cms::TemporaryTopic Class Reference

Defines a Temporary **Topic** (p. 3215) based **Destination** (p. 1480).

#include <src/main/cms/TemporaryTopic.h> Inheritance diagram for cms::TemporaryTopic:

### Public Member Functions

- virtual **~TemporaryTopic** ()
- virtual std::string **getTopicName** () const =0 throw ( CMSEException )  
*Gets the name of this topic.*
- virtual void **destroy** ()=0 throw ( CMSEException )  
*Destroy's the Temporary **Destination** (p. 1480) at the Provider.*

### 6.677.1 Detailed Description

Defines a Temporary **Topic** (p. 3215) based **Destination** (p. 1480). A **TemporaryTopic** (p. 3168) is a special type of **Topic** (p. 3215) **Destination** (p. 1480) that can only be consumed from the **Connection** (p. 1131) which created it. TemporaryTopics are most commonly used as the reply to address for Message's that implement the request response pattern.

A **TemporaryTopic** (p. 3168) is guaranteed to exist at the Provider only for the lifetime of the **Connection** (p. 1131) that created it.

Since:

1.0

### 6.677.2 Constructor & Destructor Documentation

**6.677.2.1** virtual cms::TemporaryTopic::~~TemporaryTopic () [inline, virtual]

### 6.677.3 Member Function Documentation

**6.677.3.1** virtual void cms::TemporaryTopic::destroy () throw ( CMSEException )  
[pure virtual]

Destroy's the Temporary **Destination** (p. 1480) at the Provider.

Exceptions:

*CMSEException* (p. 1031)

Implemented in **activemq::commands::ActiveMQTempTopic** (p. 550).

**6.677.3.2** `virtual std::string cms::TemporaryTopic::getTopicName () const throw ( CMSException ) [pure virtual]`

Gets the name of this topic.

**Returns:**

The topic name.

**Exceptions:**

*CMSException* (p. 1031) - if an internal error occurs.

Implemented in **activemq::commands::ActiveMQTempTopic** (p. 551).

The documentation for this class was generated from the following file:

- `src/main/cms/TemporaryTopic.h`

## 6.678 cms::TextMessage Class Reference

Interface for a text message.

#include <src/main/cms/TextMessage.h> Inheritance diagram for cms::TextMessage:

### Public Member Functions

- virtual `~TextMessage ()`
- virtual `std::string getText () const` `=0` throw ( cms::CMSEException )  
*Gets the message character buffer.*
- virtual void `setText (const char *msg)=0` throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets the message contents, does not take ownership of the passed char\*, but copies it instead.*
- virtual void `setText (const std::string &msg)=0` throw ( cms::MessageNotWriteableException, cms::CMSEException )  
*Sets the message contents.*

### 6.678.1 Detailed Description

Interface for a text message. A **TextMessage** (p. 3170) can contain any Text based pay load such as an XML Document or other Text based document.

Like all Messages, a **TextMessage** (p. 3170) is received in Read-Only mode, any attempt to write to the **Message** (p. 2163) will result in a `MessageNotWritableException` being thrown until the `clearBody` method is called which will erase the contents and place the message back in a read / write mode.

Since:

1.0

### 6.678.2 Constructor & Destructor Documentation

**6.678.2.1** virtual cms::TextMessage::~TextMessage () [inline, virtual]

### 6.678.3 Member Function Documentation

**6.678.3.1** virtual std::string cms::TextMessage::getText () const throw ( cms::CMSEException ) [pure virtual]

Gets the message character buffer.

Returns:

The message character buffer.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

Implemented in `activemq::commands::ActiveMQTextMessage` (p. 576).

**6.678.3.2** `virtual void cms::TextMessage::setText (const std::string & msg) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Sets the message contents.

**Parameters:**

*msg* The message buffer.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode..

Implemented in `activemq::commands::ActiveMQTextMessage` (p. 576).

**6.678.3.3** `virtual void cms::TextMessage::setText (const char * msg) throw ( cms::MessageNotWriteableException, cms::CMSEException ) [pure virtual]`

Sets the message contents, does not take ownership of the passed char\*, but copies it instead.

**Parameters:**

*msg* The message buffer.

**Exceptions:**

*CMSEException* (p. 1031) - if an internal error occurs.

*MessageNotWriteableException* (p. 2331) - if the message is in read-only mode..

Implemented in `activemq::commands::ActiveMQTextMessage` (p. 576).

The documentation for this class was generated from the following file:

- `src/main/cms/TextMessage.h`

## 6.679 decaf::util::concurrent::ThreadFactory Class Reference

public interface **ThreadFactory** (p. 3172)

```
#include <src/main/decaf/util/concurrent/ThreadFactory.h>
```

### Public Member Functions

- virtual **~ThreadFactory** ()
- virtual decaf::lang::Thread \* **newThread** (decaf::lang::Runnable \*r)=0  
*Constructs a new Thread.*

### 6.679.1 Detailed Description

public interface **ThreadFactory** (p. 3172) An object that creates new threads on demand. Using thread factories removes hardwiring of calls to new Thread, enabling applications to use special thread subclasses, priorities, etc.

The simplest implementation of this interface is just:

```
class SimpleThreadFactory : public ThreadFactory (p. 3172) { public: Thread* newThread(
Runnable* r ) { return new Thread(r); } }
```

The Executors.defaultThreadFactory() method provides a more useful simple implementation, that sets the created thread context to known values before returning it.

Since:

1.0

### 6.679.2 Constructor & Destructor Documentation

**6.679.2.1** virtual decaf::util::concurrent::ThreadFactory::~~ThreadFactory ()  
[inline, virtual]

### 6.679.3 Member Function Documentation

**6.679.3.1** virtual decaf::lang::Thread\* decaf::util::concurrent::ThreadFactory::newThread (decaf::lang::Runnable \* r) [pure virtual]

Constructs a new Thread. Implementations may also initialize priority, name, daemon status, ThreadGroup, etc. The pointer passed is still owned by the caller and is not deleted by the Thread object. The caller owns the returned Thread object and must delete it when finished.

**Parameters:**

*r* A pointer to a Runnable instance to be executed by new Thread instance returned.

**Returns:**

constructed thread, or NULL if the request to create a thread is rejected the caller owns the returned pointer.



The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/ThreadFactory.h`

## 6.680 decaf::lang::ThreadGroup Class Reference

```
#include <src/main/decaf/lang/ThreadGroup.h>
```

### Public Member Functions

- **ThreadGroup** ()
- virtual **~ThreadGroup** ()

### 6.680.1 Detailed Description

Since:

1.0

### 6.680.2 Constructor & Destructor Documentation

**6.680.2.1 decaf::lang::ThreadGroup::ThreadGroup ()**

**6.680.2.2 virtual decaf::lang::ThreadGroup::~~ThreadGroup ()** [virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/ThreadGroup.h`

## 6.681 decaf::util::concurrent::ThreadPool Class Reference

Defines a Thread Pool object that implements the functionality of pooling threads to perform user tasks.

#include <src/main/decaf/util/concurrent/ThreadPool.h> Inheritance diagram for decaf::util::concurrent::ThreadPool:

### Public Types

- typedef std::pair< lang::Runnable \*, TaskListener \* > Task

### Public Member Functions

- **ThreadPool** ()
- virtual ~**ThreadPool** ()
- virtual void **queueTask** (Task task) throw ( lang::Exception )  
*Queue (p. 2671) a task to be completed by one of the Pooled Threads.*
- virtual Task **deQueueTask** () throw ( lang::Exception )  
*DeQueue a task to be completed by one of the Pooled Threads.*
- virtual std::size\_t **getPoolSize** () const  
*Returns the current number of Threads in the Pool, this is how many there are now, not how many are active or the max number that might exist.*
- virtual std::size\_t **getBacklog** () const  
*Returns the current backlog of items in the tasks queue, this is how much work is still waiting to get done.*
- virtual void **reserve** (std::size\_t size)  
*Ensures that there is at least the specified number of Threads allocated to the pool.*
- virtual std::size\_t **getMaxThreads** () const  
*Get the Max Number of Threads this Pool can contain.*
- virtual void **setMaxThreads** (std::size\_t maxThreads)  
*Sets the Max number of threads this pool can contain.*
- virtual std::size\_t **getBlockSize** () const  
*Gets the Max number of threads that can be allocated at a time when new threads are needed.*
- virtual void **setBlockSize** (std::size\_t blockSize)  
*Sets the Max number of Threads that can be allocated at a time when the Thread Pool determines that more Threads are needed.*
- virtual std::size\_t **getFreeThreadCount** () const  
*Returns the current number of available threads in the pool, threads that are performing a user task are considered unavailable.*

- virtual void **onTaskStarted** (**PooledThread** \*thread)

*Called by a pooled thread when it is about to begin executing a new task.*

- virtual void **onTaskCompleted** (**PooledThread** \*thread)

*Called by a pooled thread when it has completed a task and is going back to waiting for another task to run, this will increment the free threads counter.*

- virtual void **onTaskException** (**PooledThread** \*thread, **lang::Exception** &ex)

*Called by a pooled thread when it has encountered an exception while running a user task, after receiving this notification the callee should assume that the **PooledThread** (p. 2518) is now no longer running.*

## Static Public Member Functions

- static **ThreadPool** \* **getInstance** ()

*Return the one and only Thread Pool instance.*

## Static Public Attributes

- static const size\_t **DEFAULT\_\_MAX\_\_POOL\_\_SIZE** = 10
- static const size\_t **DEFAULT\_\_MAX\_\_BLOCK\_\_SIZE** = 3

### 6.681.1 Detailed Description

Defines a Thread Pool object that implements the functionality of pooling threads to perform user tasks. The Thread Pool has max size that it will grow to. The thread pool allocates threads in blocks. When there are no waiting worker threads and a task is queued then a new batch is allocated. The user can specify the size of the blocks, otherwise a default value is used.

When the user queues a task they must also queue a listener to be notified when the task has completed, this provides the user with a mechanism to know when a task object can be freed.

To have the Thread Pool perform a task, the user enqueue's an object that implements the **Runnable** interface and one of the worker threads will executing it in its thread context.

## 6.681.2 Member Typedef Documentation

**6.681.2.1**    `typedef std::pair<lang::Runnable*, TaskListener*>  
decaf::util::concurrent::ThreadPool::Task`

## 6.681.3 Constructor & Destructor Documentation

**6.681.3.1**    `decaf::util::concurrent::ThreadPool::ThreadPool ()`

**6.681.3.2**    `virtual decaf::util::concurrent::ThreadPool::~~ThreadPool ()` [virtual]

## 6.681.4 Member Function Documentation

**6.681.4.1**    `virtual Task decaf::util::concurrent::ThreadPool::deQueueTask () throw (  
lang::Exception )` [virtual]

DeQueue a task to be completed by one of the Pooled Threads. A caller of this method will block until there is something in the tasks queue, therefore care must be taken when calling this function. Normally clients of **ThreadPool** (p.3175) don't use this, only the **PooledThread** (p.2518) objects owned by this **ThreadPool** (p.3175).

### Returns:

object that derives from Runnable

### Exceptions:

*ActiveMQException*

**6.681.4.2**    `virtual std::size_t decaf::util::concurrent::ThreadPool::getBacklog ()  
const` [inline, virtual]

Returns the current backlog of items in the tasks queue, this is how much work is still waiting to get done.

### Returns:

number of outstanding tasks.

**6.681.4.3**    `virtual std::size_t decaf::util::concurrent::ThreadPool::getBlockSize ()  
const` [inline, virtual]

Gets the Max number of threads that can be allocated at a time when new threads are needed.

### Returns:

max Thread Block Size

**6.681.4.4**    `virtual std::size_t de-  
caf::util::concurrent::ThreadPool::getFreeThreadCount ()  
const` [inline, virtual]

Returns the current number of available threads in the pool, threads that are performing a user task are considered unavailable. This value could change immediately after calling as Threads

could finish right after and be available again. This is informational only.

**Returns:**

total free threads

**6.681.4.5 static ThreadPool\* decaf::util::concurrent::ThreadPool::getInstance ()**  
[static]

Return the one and only Thread Pool instance.

**Returns:**

The Thread Pool Pointer

**6.681.4.6 virtual std::size\_t decaf::util::concurrent::ThreadPool::getMaxThreads ()**  
const [inline, virtual]

Get the Max Number of Threads this Pool can contain.

**Returns:**

max size

**6.681.4.7 virtual std::size\_t decaf::util::concurrent::ThreadPool::getPoolSize ()**  
const [inline, virtual]

Returns the current number of Threads in the Pool, this is how many there are now, not how many are active or the max number that might exist.

**Returns:**

integer number of threads in existence.

**6.681.4.8 virtual void decaf::util::concurrent::ThreadPool::onTaskCompleted**  
(PooledThread \* *thread*) [virtual]

Called by a pooled thread when it has completed a task and is going back to waiting for another task to run, this will increment the free threads counter.

**Parameters:**

*thread* Pointer the the Pooled Thread that is making this call.

Implements **decaf::util::concurrent::PooledThreadListener** (p. 2520).

**6.681.4.9 virtual void decaf::util::concurrent::ThreadPool::onTaskException**  
(PooledThread \* *thread*, lang::Exception & *ex*) [virtual]

Called by a pooled thread when it has encountered an exception while running a user task, after receiving this notification the callee should assume that the **PooledThread** (p. 2518) is now no longer running.

**Parameters:**

*thread* Pointer to the Pooled Thread that is making this call  
*ex* The Exception that occurred.

Implements **decaf::util::concurrent::PooledThreadListener** (p. 2521).

**6.681.4.10 virtual void decaf::util::concurrent::ThreadPool::onTaskStarted (PooledThread \* *thread*) [virtual]**

Called by a pooled thread when it is about to begin executing a new task. This will decrement the available threads counter so that this object knows when there are no more free threads and must create new ones.

**Parameters:**

*thread* Pointer to the Pooled Thread that is making this call

Implements **decaf::util::concurrent::PooledThreadListener** (p. 2521).

**6.681.4.11 virtual void decaf::util::concurrent::ThreadPool::queueTask (Task *task*) throw ( lang::Exception ) [virtual]**

**Queue** (p. 2671) a task to be completed by one of the Pooled Threads. tasks are serviced as soon as a PooledThread (p. 2518) is available to run it.

**Parameters:**

*task* object that derives from Runnable

**Exceptions:**

*ActiveMQException*

**6.681.4.12 virtual void decaf::util::concurrent::ThreadPool::reserve (std::size\_t *size*) [virtual]**

Ensures that there is at least the specified number of Threads allocated to the pool. If the size is greater than the MAX number of threads in the pool, then only MAX threads are reserved. If the size is smaller than the number of threads currently in the pool, than nothing is done.

**Parameters:**

*size* the number of threads to reserve.

**6.681.4.13 virtual void decaf::util::concurrent::ThreadPool::setBlockSize (std::size\_t *blockSize*) [virtual]**

Sets the Max number of Threads that can be allocated at a time when the Thread Pool determines that more Threads are needed.

**Parameters:**

*blockSize* Max Thread Block Size

**6.681.4.14**    `virtual void decaf::util::concurrent::ThreadPool::setMaxThreads`  
                  `(std::size_t maxThreads)`    [virtual]

Sets the Max number of threads this pool can contain. if this value is smaller than the current size of the pool nothing is done.

**Parameters:**

*maxThreads*    total number of threads that can be pooled

## 6.681.5    Field Documentation

**6.681.5.1**    `const size_t decaf::util::concurrent::ThreadPool::DEFAULT_MAX_BLOCK_SIZE = 3`    [static]

**6.681.5.2**    `const size_t decaf::util::concurrent::ThreadPool::DEFAULT_MAX_POOL_SIZE = 10`    [static]

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/ThreadPool.h`



## 6.682 decaf::lang::Throwable Class Reference

This class represents an error that has occurred.

#include <src/main/decaf/lang/Throwable.h> Inheritance diagram for decaf::lang::Throwable:

### Public Member Functions

- **Throwable** () throw ()
- virtual ~**Throwable** () throw ()
- virtual std::string **getMessage** () const =0  
*Gets the cause of the error, if no message was provided to the instance of this interface but a cause was then the value cause.getMessage is then returned.*
- virtual const std::exception \* **getCause** () const =0  
*Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.*
- virtual void **initCause** (const std::exception \*cause)=0  
*Initializes the contained cause exception with the one given.*
- virtual void **setMark** (const char \*file, const int lineNumber)=0  
*Adds a file/line number to the stack trace.*
- virtual **Throwable** \* **clone** () const =0  
*Clones this exception.*
- virtual std::vector< std::pair< std::string, int > > **getStackTrace** () const =0  
*Provides the stack trace for every point where this exception was caught, marked, and rethrown.*
- virtual void **printStackTrace** () const =0  
*Prints the stack trace to std::err.*
- virtual void **printStackTrace** (std::ostream &stream) const =0  
*Prints the stack trace to the given output stream.*
- virtual std::string **getStackTraceString** () const =0  
*Gets the stack trace as one contiguous string.*

### 6.682.1 Detailed Description

This class represents an error that has occurred. All Exceptions in the Decaf library should extend from this or from the **Exception** (p. 1574) class in order to ensure that all Decaf Exceptions are interchangeable with the std::exception class.

**Throwable** (p. 3181) can wrap another **Throwable** (p. 3181) as the cause if the error being thrown. The user can inspect the cause by calling `getCause`, the pointer returned is the property of the **Throwable** (p. 3181) instance and will be deleted when it is deleted or goes out of scope.

**Since:**

1.0

## 6.682.2 Constructor & Destructor Documentation

**6.682.2.1** `decaf::lang::Throwable::Throwable () throw () [inline]`

**6.682.2.2** `virtual decaf::lang::Throwable::~~Throwable () throw () [inline, virtual]`

## 6.682.3 Member Function Documentation

**6.682.3.1** `virtual Throwable* decaf::lang::Throwable::clone () const [pure virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

Copy of this **Exception** (p. 1574) object

Implemented in **activemq::exceptions::ActiveMQException** (p. 306), **activemq::exceptions::BrokerException** (p. 749), **decaf::io::EOFException** (p. 1573), **decaf::io::InterruptedIOException** (p. 1807), **decaf::io::IOException** (p. 1822), **decaf::io::UnsupportedEncodingException** (p. 3302), **decaf::io::UTFDataFormatException** (p. 3355), **decaf::lang::Exception** (p. 1577), **decaf::lang::exceptions::ClassCastException** (p. 1018), **decaf::lang::exceptions::IllegalArgumentException** (p. 1722), **decaf::lang::exceptions::IllegalMonitorStateException** (p. 1725), **decaf::lang::exceptions::IllegalStateException** (p. 1728), **decaf::lang::exceptions::IllegalThreadStateException** (p. 1732), **decaf::lang::exceptions::IndexOutOfBoundsException** (p. 1739), **decaf::lang::exceptions::InterruptedException** (p. 1804), **decaf::lang::exceptions::InvalidStateException** (p. 1819), **decaf::lang::exceptions::NoSuchElementException** (p. 2425), **decaf::lang::exceptions::NullPointerException** (p. 2431), **decaf::lang::exceptions::NumberFormatException** (p. 2437), **decaf::lang::exceptions::RuntimeException** (p. 2821), **decaf::lang::exceptions::UnsupportedOperationException** (p. 3307), **decaf::net::BindException** (p. 723), **decaf::net::ConnectException** (p. 1130), **decaf::net::HttpRetryException** (p. 1719), **decaf::net::MalformedURLException** (p. 2093), **decaf::net::NoRouteToHostException** (p. 2419), **decaf::net::PortUnreachableException** (p. 2524), **decaf::net::ProtocolException** (p. 2669), **decaf::net::SocketException** (p. 2973), **decaf::net::SocketTimeoutException** (p. 2992), **decaf::net::UnknownHostException** (p. 3296), **decaf::net::UnknownServiceException** (p. 3299), **decaf::net::URISyntaxException** (p. 3337), **decaf::nio::BufferOverflowException** (p. 836), **decaf::nio::BufferUnderflowException** (p. 839), **decaf::nio::InvalidMarkException** (p. 1815), **decaf::nio::ReadOnlyBufferException** (p. 2687), **decaf::util::concurrent::BrokenBarrierException** (p. 744),

<b>decaf::util::concurrent::CancellationException</b>	(p. 967),	<b>de-</b>
<b>caf::util::concurrent::ExecutionException</b>	(p. 1607),	<b>de-</b>
<b>caf::util::concurrent::RejectedExecutionException</b>	(p. 2701),	<b>de-</b>
<b>caf::util::concurrent::TimeoutException</b>	(p. 3187).	

### 6.682.3.2 virtual const std::exception\* decaf::lang::Throwable::getCause () const [pure virtual]

Gets the exception that caused this one to be thrown, this allows for chaining of exceptions in the case of a method that throws only a particular exception but wishes to allow for the real causal exception to be passed only in case the caller knows about that type of exception and wishes to respond to it.

#### Returns:

a const pointer reference to the causal exception, if there was no cause associated with this exception then NULL is returned.

Implemented in **decaf::lang::Exception** (p. 1577).

### 6.682.3.3 virtual std::string decaf::lang::Throwable::getMessage () const [pure virtual]

Gets the cause of the error, if no message was provided to the instance of this interface but a cause was then the value cause.getMessage is then returned.

#### Returns:

string errors message

Implemented in **decaf::lang::Exception** (p. 1578).

### 6.682.3.4 virtual std::vector< std::pair< std::string, int> > decaf::lang::Throwable::getStackTrace () const [pure virtual]

Provides the stack trace for every point where this exception was caught, marked, and rethrown.

#### Returns:

vector containing stack trace strings

Implemented in **decaf::lang::Exception** (p. 1578).

### 6.682.3.5 virtual std::string decaf::lang::Throwable::getStackTraceString () const [pure virtual]

Gets the stack trace as one contiguous string.

#### Returns:

string with formatted stack trace data

Implemented in **decaf::lang::Exception** (p. 1578).

**6.682.3.6** `virtual void decaf::lang::Throwable::initCause (const std::exception * cause)` [pure virtual]

Initializes the contained cause exception with the one given. A copy is made to avoid ownership issues.

**Parameters:**

*cause* The exception that was the cause of this one.

Implemented in `decaf::lang::Exception` (p. 1578).

**6.682.3.7** `virtual void decaf::lang::Throwable::printStackTrace (std::ostream & stream) const` [pure virtual]

Prints the stack trace to the given output stream.

**Parameters:**

*stream* the target output stream.

Implemented in `decaf::lang::Exception` (p. 1579).

**6.682.3.8** `virtual void decaf::lang::Throwable::printStackTrace () const` [pure virtual]

Prints the stack trace to std::err.

Implemented in `decaf::lang::Exception` (p. 1579).

**6.682.3.9** `virtual void decaf::lang::Throwable::setMark (const char * file, const int lineNumber)` [pure virtual]

Adds a file/line number to the stack trace.

**Parameters:**

*file* The name of the file calling this method (use `__FILE__`).

*lineNumber* The line number in the calling file (use `__LINE__`).

Implemented in `decaf::lang::Exception` (p. 1579).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/Throwable.h`

## 6.683 decaf::util::concurrent::TimeoutException Class Reference

#include <src/main/decaf/util/concurrent/TimeoutException.h> Inheritance diagram for decaf::util::concurrent::TimeoutException:

### Public Member Functions

- **TimeoutException** () throw ()  
*Default Constructor.*
- **TimeoutException** (const decaf::lang::Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **TimeoutException** (const TimeoutException &ex) throw ()  
*Copy Constructor.*
- **TimeoutException** (const std::exception \*cause) throw ()  
*Constructor.*
- **TimeoutException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **TimeoutException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **TimeoutException \* clone** () const  
*Clones this exception.*
- virtual ~**TimeoutException** () throw ()

### 6.683.1 Constructor & Destructor Documentation

#### 6.683.1.1 decaf::util::concurrent::TimeoutException::TimeoutException () throw () [inline]

Default Constructor.

#### 6.683.1.2 decaf::util::concurrent::TimeoutException::TimeoutException (const decaf::lang::Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

**6.683.1.3   decaf::util::concurrent::TimeoutException::TimeoutException (const TimeoutException & *ex*) throw ()   [inline]**

Copy Constructor.

**Parameters:**

*ex* The exception to copy from.

References decaf::lang::Exception::Exception().

**6.683.1.4   decaf::util::concurrent::TimeoutException::TimeoutException (const std::exception \* *cause*) throw ()   [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.683.1.5   decaf::util::concurrent::TimeoutException::TimeoutException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw ()   [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The string message to report

... list of primitives that are formatted into the message

**6.683.1.6   decaf::util::concurrent::TimeoutException::TimeoutException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw ()   [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The string message to report

... list of primitives that are formatted into the message

**6.683.1.7** virtual decaf::util::concurrent::TimeoutException::~~TimeoutException ()  
throw () [inline, virtual]

## 6.683.2 Member Function Documentation

**6.683.2.1** virtual TimeoutException\* decaf::util::concurrent::TimeoutException::clone () const  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new **TimeoutException** (p.3185) that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p.1577).

The documentation for this class was generated from the following file:

- src/main/decaf/util/concurrent/**TimeoutException.h**

## 6.684 decaf::util::Timer Class Reference

A facility for threads to schedule tasks for future execution in a background thread.

```
#include <src/main/decaf/util/Timer.h>
```

### Public Member Functions

- **Timer** ()
- virtual ~**Timer** ()
- void **cancel** ()  
*Terminates this timer, discarding any currently scheduled tasks.*
- std::size\_t **purge** ()  
*Removes all canceled tasks from this timer's task queue.*
- void **schedule** (**TimerTask** \*task, long long delay) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for execution after the specified delay.*
- void **schedule** (const decaf::lang::Pointer< **TimerTask** > &task, long long delay) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for execution after the specified delay.*
- void **schedule** (**TimerTask** \*task, const **Date** &time) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for execution at the specified time.*
- void **schedule** (const decaf::lang::Pointer< **TimerTask** > &task, const **Date** &time) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for execution at the specified time.*
- void **schedule** (**TimerTask** \*task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-delay execution, beginning after the specified delay.*
- void **schedule** (const decaf::lang::Pointer< **TimerTask** > &task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-delay execution, beginning after the specified delay.*



- void **schedule** (**TimerTask** \*task, const **Date** &firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-delay execution, beginning at the specified time.*
- void **schedule** (const decaf::lang::Pointer< **TimerTask** > &task, const **Date** &firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-delay execution, beginning at the specified time.*
- void **scheduleAtFixedRate** (**TimerTask** \*task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-rate execution, beginning after the specified delay.*
- void **scheduleAtFixedRate** (const decaf::lang::Pointer< **TimerTask** > &task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-rate execution, beginning after the specified delay.*
- void **scheduleAtFixedRate** (**TimerTask** \*task, const **Date** &firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-rate execution, beginning at the specified time.*
- void **scheduleAtFixedRate** (const decaf::lang::Pointer< **TimerTask** > &task, const **Date** &firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )  
*Schedules the specified task for repeated fixed-rate execution, beginning at the specified time.*

## 6.684.1 Detailed Description

A facility for threads to schedule tasks for future execution in a background thread. Tasks may be scheduled for one-time execution, or for repeated execution at regular intervals.

Corresponding to each **Timer** (p. 3188) object is a single background thread that is used to execute all of the timer's tasks, sequentially. **Timer** (p. 3188) tasks should complete quickly. If a timer task takes excessive time to complete, it "hogs" the timer's task execution thread. This can, in turn, delay the execution of subsequent tasks, which may "bunch up" and execute in rapid succession when (and if) the offending task finally completes.

This class is thread-safe: multiple threads can share a single **Timer** (p. 3188) object without the need for external synchronization.

This class does not offer real-time guarantees: it schedules tasks using the wait(long) method.

Since:

1.0

## 6.684.2 Constructor & Destructor Documentation

**6.684.2.1** `decaf::util::Timer::Timer ()`

**6.684.2.2** `virtual decaf::util::Timer::~~Timer ()` [virtual]

## 6.684.3 Member Function Documentation

**6.684.3.1** `void decaf::util::Timer::cancel ()`

Terminates this timer, discarding any currently scheduled tasks. Does not interfere with a currently executing task (if it exists). Once a timer has been terminated, its execution thread terminates gracefully, and no more tasks may be scheduled on it.

Note that calling this method from within the run method of a timer task that was invoked by this timer absolutely guarantees that the ongoing task execution is the last task execution that will ever be performed by this timer.

This method may be called repeatedly; the second and subsequent calls have no effect.

**6.684.3.2** `std::size_t decaf::util::Timer::purge ()`

Removes all canceled tasks from this timer's task queue. Calling this method has no effect on the behavior of the timer, but eliminates the canceled tasks from the queue causing the **Timer** (p. 3188) to destroy the **TimerTask** (p. 3199) pointer it was originally given, the caller should ensure that they no longer have any references to TimerTasks that were previously scheduled.

Most programs will have no need to call this method. It is designed for use by the rare application that cancels a large number of tasks. Calling this method trades time for space: the runtime of the method may be proportional to  $n + c \log n$ , where  $n$  is the number of tasks in the queue and  $c$  is the number of canceled tasks.

This method can be called on a **Timer** (p. 3188) object that has no scheduled tasks without error.

**Returns:**

the number of tasks removed from the queue.

**6.684.3.3** `void decaf::util::Timer::schedule (const decaf::lang::Pointer< TimerTask > & task, const Date & firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for repeated fixed-delay execution, beginning at the specified time. Subsequent executions take place at approximately regular intervals separated by the specified period.

In fixed-delay execution, each execution is scheduled relative to the actual execution time of the previous execution. If an execution is delayed for any reason (such as other background activity),

subsequent executions will be delayed as well. In the long run, the frequency of execution will generally be slightly lower than the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long long)` is accurate).

Fixed-delay execution is appropriate for recurring activities that require "smoothness." In other words, it is appropriate for activities where it is more important to keep the frequency accurate in the short run than in the long run. This includes most animation tasks, such as blinking a cursor at regular intervals. It also includes tasks wherein regular activity is performed in response to human input, such as automatically repeating a character as long as a key is held down.

#### Parameters:

*task* - task to be scheduled.

*firstTime* - First time at which task is to be executed.

*period* - time in milliseconds between successive task executions.

#### Exceptions:

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if `time.getTime()` is negative.

*IllegalStateException* - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

**6.684.3.4** `void decaf::util::Timer::schedule (TimerTask * task,  
const Date & firstTime, long long period) throw  
( decaf::lang::exceptions::NullPointerException,  
decaf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for repeated fixed-delay execution, beginning at the specified time. Subsequent executions take place at approximately regular intervals separated by the specified period.

The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its **TimerTask**'s once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

In fixed-delay execution, each execution is scheduled relative to the actual execution time of the previous execution. If an execution is delayed for any reason (such as other background activity), subsequent executions will be delayed as well. In the long run, the frequency of execution will generally be slightly lower than the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long long)` is accurate).

Fixed-delay execution is appropriate for recurring activities that require "smoothness." In other words, it is appropriate for activities where it is more important to keep the frequency accurate in the short run than in the long run. This includes most animation tasks, such as blinking a cursor at regular intervals. It also includes tasks wherein regular activity is performed in response to human input, such as automatically repeating a character as long as a key is held down.

#### Parameters:

*task* - task to be scheduled.

*firstTime* - First time at which task is to be executed.

*period* - time in milliseconds between successive task executions.

#### Exceptions:

***NullPointerException*** - if the **TimerTask** (p. 3199) value is Null.

***IllegalArgumentException*** - if time.getTime() is negative.

***IllegalStateException*** - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

```
6.684.3.5 void decaf::util::Timer::schedule (const decaf::lang::Pointer<
TimerTask > & task, long long delay, long long period)
throw ( decaf::lang::exceptions::NullPointerException,
decaf::lang::exceptions::IllegalArgumentException,
decaf::lang::exceptions::IllegalStateException )
```

Schedules the specified task for repeated fixed-delay execution, beginning after the specified delay. Subsequent executions take place at approximately regular intervals separated by the specified period.

In fixed-delay execution, each execution is scheduled relative to the actual execution time of the previous execution. If an execution is delayed for any reason (such as other background activity), subsequent executions will be delayed as well. In the long run, the frequency of execution will generally be slightly lower than the reciprocal of the specified period (assuming the system clock underlying Object.wait(long long) is accurate).

Fixed-delay execution is appropriate for recurring activities that require "smoothness." In other words, it is appropriate for activities where it is more important to keep the frequency accurate in the short run than in the long run. This includes most animation tasks, such as blinking a cursor at regular intervals. It also includes tasks wherein regular activity is performed in response to human input, such as automatically repeating a character as long as a key is held down.

#### Parameters:

*task* - task to be scheduled.

*delay* - delay in milliseconds before task is to be executed.

*period* - time in milliseconds between successive task executions.

#### Exceptions:

***NullPointerException*** - if the **TimerTask** (p. 3199) value is Null.

***IllegalArgumentException*** - if delay is negative, or delay + System.currentTimeMillis() is negative.

***IllegalStateException*** - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

```
6.684.3.6 void decaf::util::Timer::schedule (TimerTask * task, long long delay,
long long period) throw ( decaf::lang::exceptions::NullPointerException,
decaf::lang::exceptions::IllegalArgumentException,
decaf::lang::exceptions::IllegalStateException )
```

Schedules the specified task for repeated fixed-delay execution, beginning after the specified delay. Subsequent executions take place at approximately regular intervals separated by the specified

period.

The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its **TimerTask**'s once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

In fixed-delay execution, each execution is scheduled relative to the actual execution time of the previous execution. If an execution is delayed for any reason (such as other background activity), subsequent executions will be delayed as well. In the long run, the frequency of execution will generally be slightly lower than the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long long)` is accurate).

Fixed-delay execution is appropriate for recurring activities that require "smoothness." In other words, it is appropriate for activities where it is more important to keep the frequency accurate in the short run than in the long run. This includes most animation tasks, such as blinking a cursor at regular intervals. It also includes tasks wherein regular activity is performed in response to human input, such as automatically repeating a character as long as a key is held down.

#### Parameters:

*task* - task to be scheduled.

*delay* - delay in milliseconds before task is to be executed.

*period* - time in milliseconds between successive task executions.

#### Exceptions:

**NullPointerException** - if the **TimerTask** (p. 3199) value is Null.

**IllegalArgumentException** - if delay is negative, or delay + `System.currentTimeMillis()` is negative.

**IllegalStateException** - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

**6.684.3.7** `void decaf::util::Timer::schedule (const decaf::lang::Pointer< TimerTask > & task, const Date & time) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for execution at the specified time. If the time is in the past, the task is scheduled for immediate execution.

#### Parameters:

*task* - task to be scheduled.

*time* - time at which task is to be executed.

#### Exceptions:

**NullPointerException** - if the **TimerTask** (p. 3199) value is Null.

**IllegalArgumentException** - if `time.getTime()` is negative.

**IllegalStateException** - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

**6.684.3.8** `void decaf::util::Timer::schedule (TimerTask * task, const Date & time) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for execution at the specified time. If the time is in the past, the task is scheduled for immediate execution.

The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its TimerTask's once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

**Parameters:**

*task* - task to be scheduled.

*time* - time at which task is to be executed.

**Exceptions:**

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if time.getTime() is negative.

*IllegalStateException* - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

**6.684.3.9** `void decaf::util::Timer::schedule (const decaf::lang::Pointer< TimerTask > & task, long long delay) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for execution after the specified delay.

**Parameters:**

*task* - task to be scheduled.

*delay* - delay in milliseconds before task is to be executed.

**Exceptions:**

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if delay is negative, or delay + System.currentTimeMillis() is negative.

*IllegalStateException* - if task was already scheduled or cancelled, or timer was cancelled.

**6.684.3.10** `void decaf::util::Timer::schedule (TimerTask * task, long long delay) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for execution after the specified delay. The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its TimerTask's once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

**Parameters:**

*task* - task to be scheduled.

*delay* - delay in milliseconds before task is to be executed.

**Exceptions:**

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if delay is negative, or delay + System.currentTimeMillis() is negative.

*IllegalStateException* - if task was already scheduled or cancelled, or timer was cancelled.

**6.684.3.11** `void decaf::util::Timer::scheduleAtFixedRate (const decaf::lang::Pointer< TimerTask > & task, const Date & firstTime, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for repeated fixed-rate execution, beginning at the specified time. Subsequent executions take place at approximately regular intervals, separated by the specified period.

In fixed-rate execution, each execution is scheduled relative to the scheduled execution time of the initial execution. If an execution is delayed for any reason (such as garbage collection or other background activity), two or more executions will occur in rapid succession to "catch up." In the long run, the frequency of execution will be exactly the reciprocal of the specified period (assuming the system clock underlying Object.wait(long) is accurate).

Fixed-rate execution is appropriate for recurring activities that are sensitive to absolute time, such as ringing a chime every hour on the hour, or running scheduled maintenance every day at a particular time. It is also appropriate for recurring activities where the total time to perform a fixed number of executions is important, such as a countdown timer that ticks once every second for ten seconds. Finally, fixed-rate execution is appropriate for scheduling multiple repeating timer tasks that must remain synchronized with respect to one another.

**Parameters:**

*task* - task to be scheduled.

*firstTime* - First time at which task is to be executed.

*period* - time in milliseconds between successive task executions.

**Exceptions:**

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if time.getTime() is negative.

*IllegalStateException* - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

```
6.684.3.12 void decaf::util::Timer::scheduleAtFixedRate (TimerTask
* task, const Date & firstTime, long long period)
throw ( decaf::lang::exceptions::NullPointerException,
decaf::lang::exceptions::IllegalArgumentException,
decaf::lang::exceptions::IllegalStateException )
```

Schedules the specified task for repeated fixed-rate execution, beginning at the specified time. Subsequent executions take place at approximately regular intervals, separated by the specified period.

The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its **TimerTask**'s once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

In fixed-rate execution, each execution is scheduled relative to the scheduled execution time of the initial execution. If an execution is delayed for any reason (such as garbage collection or other background activity), two or more executions will occur in rapid succession to "catch up." In the long run, the frequency of execution will be exactly the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long)` is accurate).

Fixed-rate execution is appropriate for recurring activities that are sensitive to absolute time, such as ringing a chime every hour on the hour, or running scheduled maintenance every day at a particular time. It is also appropriate for recurring activities where the total time to perform a fixed number of executions is important, such as a countdown timer that ticks once every second for ten seconds. Finally, fixed-rate execution is appropriate for scheduling multiple repeating timer tasks that must remain synchronized with respect to one another.

**Parameters:**

*task* - task to be scheduled.

*firstTime* - First time at which task is to be executed.

*period* - time in milliseconds between successive task executions.

**Exceptions:**

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if time.getTime() is negative.

*IllegalStateException* - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.



**6.684.3.13** `void decaf::util::Timer::scheduleAtFixedRate (const decaf::lang::Pointer< TimerTask > & task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for repeated fixed-rate execution, beginning after the specified delay. Subsequent executions take place at approximately regular intervals, separated by the specified period.

In fixed-rate execution, each execution is scheduled relative to the scheduled execution time of the initial execution. If an execution is delayed for any reason (such as garbage collection or other background activity), two or more executions will occur in rapid succession to "catch up." In the long run, the frequency of execution will be exactly the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long)` is accurate).

Fixed-rate execution is appropriate for recurring activities that are sensitive to absolute time, such as ringing a chime every hour on the hour, or running scheduled maintenance every day at a particular time. It is also appropriate for recurring activities where the total time to perform a fixed number of executions is important, such as a countdown timer that ticks once every second for ten seconds. Finally, fixed-rate execution is appropriate for scheduling multiple repeating timer tasks that must remain synchronized with respect to one another.

#### Parameters:

*task* - task to be scheduled.

*delay* - delay in milliseconds before task is to be executed.

*period* - time in milliseconds between successive task executions.

#### Exceptions:

*NullPointerException* - if the **TimerTask** (p. 3199) value is Null.

*IllegalArgumentException* - if delay is negative, or delay + `System.currentTimeMillis()` is negative.

*IllegalStateException* - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

**6.684.3.14** `void decaf::util::Timer::scheduleAtFixedRate (TimerTask * task, long long delay, long long period) throw ( decaf::lang::exceptions::NullPointerException, decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::IllegalStateException )`

Schedules the specified task for repeated fixed-rate execution, beginning after the specified delay. Subsequent executions take place at approximately regular intervals, separated by the specified period.

The **TimerTask** (p. 3199) pointer is considered to be owned by the **Timer** (p. 3188) class once it has been scheduled, the **Timer** (p. 3188) will destroy its **TimerTask**'s once they have been cancelled or the **Timer** (p. 3188) itself is cancelled. A **TimerTask** (p. 3199) is considered scheduled only when this method return without throwing an exception, until that time ownership is not considered to have been transferred to the **Timer** (p. 3188) and the caller should ensure that the **TimerTask** (p. 3199) gets deleted if an exception is thrown and no further attempts to schedule that **TimerTask** (p. 3199) instance are planned.

In fixed-rate execution, each execution is scheduled relative to the scheduled execution time of the initial execution. If an execution is delayed for any reason (such as garbage collection or other background activity), two or more executions will occur in rapid succession to "catch up." In the long run, the frequency of execution will be exactly the reciprocal of the specified period (assuming the system clock underlying `Object.wait(long)` is accurate).

Fixed-rate execution is appropriate for recurring activities that are sensitive to absolute time, such as ringing a chime every hour on the hour, or running scheduled maintenance every day at a particular time. It is also appropriate for recurring activities where the total time to perform a fixed number of executions is important, such as a countdown timer that ticks once every second for ten seconds. Finally, fixed-rate execution is appropriate for scheduling multiple repeating timer tasks that must remain synchronized with respect to one another.

**Parameters:**

- task*** - task to be scheduled.
- delay*** - delay in milliseconds before task is to be executed.
- period*** - time in milliseconds between successive task executions.

**Exceptions:**

- NullPointerException*** - if the **TimerTask** (p. 3199) value is Null.
- IllegalArgumentException*** - if delay is negative, or delay + `System.currentTimeMillis()` is negative.
- IllegalStateException*** - if task was already scheduled or cancelled, timer was cancelled, or timer thread terminated.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/Timer.h`

## 6.685 decaf::util::TimerTask Class Reference

A Base class for a task object that can be scheduled for one-time or repeated execution by a **Timer** (p. 3188).

`#include <src/main/decaf/util/TimerTask.h>`Inheritance diagram for decaf::util::TimerTask:

### Public Member Functions

- **TimerTask** ()
- virtual **~TimerTask** ()
- bool **cancel** ()  
*Cancels this timer task.*
- long long **scheduledExecutionTime** () const  
*Returns the scheduled execution time of the most recent actual execution of this task.*

### Protected Member Functions

- bool **isScheduled** () const
- void **setScheduledTime** (long long time)
- long long **getWhen** () const

### Friends

- class **Timer**
- class **TimerImpl**
- class **decaf::internal::util::TimerTaskHeap**

#### 6.685.1 Detailed Description

A Base class for a task object that can be scheduled for one-time or repeated execution by a **Timer** (p. 3188).

**Since:**

1.0

## 6.685.2 Constructor & Destructor Documentation

**6.685.2.1** `decaf::util::TimerTask::TimerTask ()`

**6.685.2.2** `virtual decaf::util::TimerTask::~~TimerTask ()` [inline, virtual]

## 6.685.3 Member Function Documentation

**6.685.3.1** `bool decaf::util::TimerTask::cancel ()`

Cancels this timer task. If the task has been scheduled for one-time execution and has not yet run, or has not yet been scheduled, it will never run. If the task has been scheduled for repeated execution, it will never run again. (If the task is running when this call occurs, the task will run to completion, but will never run again.)

Note that calling this method from within the run method of a repeating timer task absolutely guarantees that the timer task will not run again.

This method may be called repeatedly; the second and subsequent calls have no effect.

### Returns:

true if this task is scheduled for one-time execution and has not yet run, or this task is scheduled for repeated execution. Returns false if the task was scheduled for one-time execution and has already run, or if the task was never scheduled, or if the task was already canceled. (Loosely speaking, this method returns true if it prevents one or more scheduled executions from taking place.)

**6.685.3.2** `long long decaf::util::TimerTask::getWhen () const` [protected]

**6.685.3.3** `bool decaf::util::TimerTask::isScheduled () const` [protected]

**6.685.3.4** `long long decaf::util::TimerTask::scheduledExecutionTime () const`

Returns the scheduled execution time of the most recent actual execution of this task. (If this method is invoked while task execution is in progress, the return value is the scheduled execution time of the ongoing task execution.)

This method is typically invoked from within a task's run method, to determine whether the current execution of the task is sufficiently timely to warrant performing the scheduled activity:

```
void run() (p. 2816) { if( System::currentTimeMillis() - scheduledExecutionTime() (p. 3200)
>= MAX_TARDINESS) return; // Too late; skip this execution. // Perform the task }
```

This method is typically not used in conjunction with fixed-delay execution repeating tasks, as their scheduled execution times are allowed to drift over time, and so are not terribly significant.

### Returns:

the time at which the most recent execution of this task was scheduled to occur, in the format returned by **Date.getTime()** (p. 1469). The return value is undefined if the task has yet to commence its first execution.

**6.685.3.5** void decaf::util::TimerTask::setScheduledTime (long long *time*)  
[protected]

## 6.685.4 Friends And Related Function Documentation

**6.685.4.1** friend class decaf::internal::util::TimerTaskHeap [friend]

**6.685.4.2** friend class Timer [friend]

**6.685.4.3** friend class TimerImpl [friend]

The documentation for this class was generated from the following file:

- src/main/decaf/util/**TimerTask.h**

## 6.686 decaf::internal::util::TimerTaskHeap Class Reference

A Binary Heap implemented specifically for the Timer class in Decaf Util.

```
#include <src/main/decaf/internal/util/TimerTaskHeap.h>
```

### Public Member Functions

- **TimerTaskHeap** ()
- virtual **~TimerTaskHeap** ()
- **Pointer< TimerTask > peek** ()

*Peaks at the Head of the Heap, returns the task with the nearest scheduled run time.*

- bool **isEmpty** () const
- std::size\_t **size** () const
- void **insert** (const **Pointer< TimerTask >** &task)

*Inserts the specified Task into the heap, heap is reordered to reflect the addition of a new element.*

- void **remove** (std::size\_t pos)

*Removes the Task at the specified position from the heap, resorts the heap from the position down to the bottom.*

- void **reset** ()

*Clear all contents from the heap.*

- void **adjustMinimum** ()

*Resorts the heap starting at the top.*

- std::size\_t **deleteIfCancelled** ()

*Runs through the heap removing all cancelled Tasks from it, this is not normally used but in case a cancellation of a large number of tasks the user can perform this purge.*

- std::size\_t **find** (const **Pointer< TimerTask >** &task) const

*Searches the heap for the specified TimerTask element and returns its position in the heap.*

### 6.686.1 Detailed Description

A Binary Heap implemented specifically for the Timer class in Decaf Util.

Since:

1.0

## 6.686.2 Constructor & Destructor Documentation

**6.686.2.1** `decaf::internal::util::TimerTaskHeap::TimerTaskHeap ()`

**6.686.2.2** `virtual decaf::internal::util::TimerTaskHeap::~~TimerTaskHeap ()`  
[virtual]

## 6.686.3 Member Function Documentation

**6.686.3.1** `void decaf::internal::util::TimerTaskHeap::adjustMinimum ()`

Resorts the heap starting at the top.

**6.686.3.2** `std::size_t decaf::internal::util::TimerTaskHeap::deleteIfCancelled ()`

Runs through the heap removing all cancelled Tasks from it, this is not normally used but in case a cancellation of a large number of tasks the user can perform this purge.

### Returns:

the number of task that were removed from the heap because they were cancelled.

**6.686.3.3** `std::size_t decaf::internal::util::TimerTaskHeap::find (const Pointer< TimerTask > & task) const`

Searches the heap for the specified TimerTask element and returns its position in the heap. Returns the unsigned equivalent of -1 if the element is not found.

### Returns:

the position in the Heap where the Task is stored, or npos.

**6.686.3.4** `void decaf::internal::util::TimerTaskHeap::insert (const Pointer< TimerTask > & task)`

Inserts the specified Task into the heap, heap is reordered to reflect the addition of a new element.

### Parameters:

*task* The TimerTask to insert into the heap.

**6.686.3.5** `bool decaf::internal::util::TimerTaskHeap::isEmpty () const`

### Returns:

true if the heap is empty.

**6.686.3.6** `Pointer<TimerTask> decaf::internal::util::TimerTaskHeap::peek ()`

Peaks at the Head of the Heap, returns the task with the nearest scheduled run time.

**Returns:**

The TimerTask that is scheduled to be executed next if the Heap is empty a Null Pointer value is returned.

**6.686.3.7** `void decaf::internal::util::TimerTaskHeap::remove (std::size_t pos)`

Removes the Task at the specified position from the heap, resorts the heap from the position down to the bottom.

**Parameters:**

*pos* The position at which to remove the TimerTask and begin a resort of the heap.

**6.686.3.8** `void decaf::internal::util::TimerTaskHeap::reset ()`

Clear all contents from the heap.

**6.686.3.9** `std::size_t decaf::internal::util::TimerTaskHeap::size () const`**Returns:**

the size of the heap.

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/util/TimerTaskHeap.h`



## 6.687 decaf::util::concurrent::TimeUnit Class Reference

A **TimeUnit** (p. 3205) represents time durations at a given unit of granularity and provides utility methods to convert across units, and to perform timing and delay operations in these units.

#include <src/main/decaf/util/concurrent/TimeUnit.h> Inheritance diagram for decaf::util::concurrent::TimeUnit:

### Public Member Functions

- virtual **~TimeUnit** ()
- long long **convert** (long long sourceDuration, const **TimeUnit** &sourceUnit) const  
*Convert the given time duration in the given unit to this unit.*
- long long **toNanos** (long long duration) const  
*Equivalent to `NANOSECONDS.convert(duration, this)`.*
- long long **toMicros** (long long duration) const  
*Equivalent to `MICROSECONDS.convert(duration, this)`.*
- long long **toMillis** (long long duration) const  
*Equivalent to `MILLISECONDS.convert(duration, this)`.*
- long long **toSeconds** (long long duration) const  
*Equivalent to `SECONDS.convert(duration, this)`.*
- long long **toMinutes** (long long duration) const  
*Equivalent to `MINUTES.convert(duration, this)`.*
- long long **toHours** (long long duration) const  
*Equivalent to `HOURS.convert(duration, this)`.*
- long long **toDays** (long long duration) const  
*Equivalent to `DAYS.convert(duration, this)`.*
- void **timedWait** (**Synchronizable** \*obj, long long timeout) const throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::NullPointerException )  
*Perform a timed `Object.wait` using this time unit.*
- void **timedJoin** (decaf::lang::Thread \*thread, long long timeout) throw ( decaf::lang::exceptions::InterruptedException, decaf::lang::exceptions::NullPointerException )  
*Perform a timed `Thread.join` using this time unit.*
- void **sleep** (long long timeout) const throw ( decaf::lang::exceptions::InterruptedException )  
*Perform a `Thread.sleep` using this unit.*

- virtual std::string **toString** () const  
*Converts the **TimeUnit** (p. 3205) type to the Name of the **TimeUnit** (p. 3205).*
- virtual int **compareTo** (const **TimeUnit** &value) const  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const **TimeUnit** &value) const
- virtual bool **operator==** (const **TimeUnit** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **TimeUnit** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*

## Static Public Member Functions

- static const **TimeUnit** & **valueOf** (const std::string &name) throw ( decaf::lang::exceptions::IllegalArgumentException )  
*Returns the **TimeUnit** (p. 3205) constant of this type with the specified name.*

## Static Public Attributes

- static const **TimeUnit** NANoseconds  
*The Actual **TimeUnit** (p. 3205) enumerations.*
- static const **TimeUnit** MICROseconds
- static const **TimeUnit** MILLIseconds
- static const **TimeUnit** SECONDS
- static const **TimeUnit** MINUTES
- static const **TimeUnit** HOURS
- static const **TimeUnit** DAYS
- static const **TimeUnit** \*const values []  
*The An Array of **TimeUnit** (p. 3205) Instances.*

## Protected Member Functions

- **TimeUnit** (int index, const std::string &name)  
*Hidden Constructor, this class can not be instantiated directly.*

### 6.687.1 Detailed Description

A **TimeUnit** (p. 3205) represents time durations at a given unit of granularity and provides utility methods to convert across units, and to perform timing and delay operations in these units. A **TimeUnit** (p. 3205) does not maintain time information, but only helps organize and use time representations that may be maintained separately across various contexts. A nanosecond is

defined as one thousandth of a microsecond, a microsecond as one thousandth of a millisecond, a millisecond as one thousandth of a second, a minute as sixty seconds, an hour as sixty minutes, and a day as twenty four hours.

A **TimeUnit** (p. 3205) is mainly used to inform time-based methods how a given timing parameter should be interpreted. For example, the following code will timeout in 50 milliseconds if the lock is not available:

**Lock** (p. 2023) lock = ...; if ( lock.tryLock( 50, **TimeUnit.MILLISECONDS** (p. 3213) ) ) ...

while this code will timeout in 50 seconds:

**Lock** (p. 2023) lock = ...; if ( lock.tryLock( 50, **TimeUnit.SECONDS** (p. 3214) ) ) ...

Note however, that there is no guarantee that a particular timeout implementation will be able to notice the passage of time at the same granularity as the given **TimeUnit** (p. 3205).

## 6.687.2 Constructor & Destructor Documentation

### 6.687.2.1 decaf::util::concurrent::TimeUnit::TimeUnit (int *index*, const std::string & *name*) [protected]

Hidden Constructor, this class can not be instantiated directly.

#### Parameters:

*index* - Index into the Time Unit set.

*name* - Name of the unit type being represented.

### 6.687.2.2 virtual decaf::util::concurrent::TimeUnit::~~TimeUnit () [inline, virtual]

## 6.687.3 Member Function Documentation

### 6.687.3.1 virtual int decaf::util::concurrent::TimeUnit::compareTo (const TimeUnit & *value*) const [virtual]

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

In the foregoing description, the notation `sgn(expression)` designates the mathematical signum function, which is defined to return one of -1, 0, or 1 according to whether the value of `expression` is negative, zero or positive. The implementor must ensure `sgn(x.compareTo(y)) == -sgn(y.compareTo(x))` for all `x` and `y`. (This implies that `x.compareTo(y)` must throw an exception iff `y.compareTo(x)` throws an exception.)

The implementor must also ensure that the relation is transitive: `(x.compareTo(y)>0 && y.compareTo(z)>0)` implies `x.compareTo(z)>0`.

Finally, the implementor must ensure that `x.compareTo(y)==0` implies that `sgn(x.compareTo(z)) == sgn(y.compareTo(z))`, for all `z`.

It is strongly recommended, but not strictly required that `(x.compareTo(y)==0) == (x.equals(y))`. Generally speaking, any class that implements the Comparable interface and violates this condition should clearly indicate this fact. The recommended language is "Note: this class has a natural ordering that is inconsistent with equals."

**Parameters:**

*value* - the Object to be compared.

**Returns:**

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**6.687.3.2    `long long decaf::util::concurrent::TimeUnit::convert (long long sourceDuration, const TimeUnit & sourceUnit) const`**

Convert the given time duration in the given unit to this unit. Conversions from finer to coarser granularities truncate, so lose precision. For example converting 999 milliseconds to seconds results in 0. Conversions from coarser to finer granularities with arguments that would numerically overflow saturate to Long.MIN\_VALUE if negative or Long.MAX\_VALUE if positive.

For example, to convert 10 minutes to milliseconds, use: TimeUnit.MILLISECONDS.convert(10L, TimeUnit.MINUTES (p. 3213))

**Parameters:**

*sourceDuration* - Duration value to convert.

*sourceUnit* - Unit type of the source duration.

**Returns:**

the converted duration in this unit, or Long.MIN\_VALUE if conversion would negatively overflow, or Long.MAX\_VALUE if it would positively overflow.

**6.687.3.3    `virtual bool decaf::util::concurrent::TimeUnit::equals (const TimeUnit & value) const [virtual]`****Returns:**

true if this value is considered equal to the passed value.

**6.687.3.4    `virtual bool decaf::util::concurrent::TimeUnit::operator< (const TimeUnit & value) const [virtual]`**

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.687.3.5 virtual bool decaf::util::concurrent::TimeUnit::operator==(const TimeUnit & *value*) const** [virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.687.3.6 void decaf::util::concurrent::TimeUnit::sleep (long long *timeout*) const**  
**throw ( decaf::lang::exceptions::InterruptedException )**

Perform a Thread.sleep using this unit. This is a convenience method that converts time arguments into the form required by the Thread.sleep method.

**Parameters:**

*timeout* the minimum time to sleep

**See also:**

Thread::sleep

**6.687.3.7 void decaf::util::concurrent::TimeUnit::timedJoin**  
**(decaf::lang::Thread \* *thread*, long long *timeout*)**  
**throw ( decaf::lang::exceptions::InterruptedException,**  
**decaf::lang::exceptions::NullPointerException )**

Perform a timed Thread.join using this time unit. This is a convenience method that converts time arguments into the form required by the Thread.join method.

**Parameters:**

*thread* the thread to wait for

*timeout* the maximum time to wait

**Exceptions:**

*InterruptedException* if interrupted while waiting.

*NullPointerException* if the thread object is null.

**See also:**

Thread::join( long long, long long )

**6.687.3.8** `void decaf::util::concurrent::TimeUnit::timedWait`  
`(Synchronizable * obj, long long timeout) const`  
`throw ( decaf::lang::exceptions::InterruptedException,`  
`decaf::lang::exceptions::NullPointerException )`

Perform a timed `Object.wait` using this time unit. This is a convenience method that converts timeout arguments into the form required by the `Object.wait` method.

For example, you could implement a blocking poll method (see **BlockingQueue.poll** (p. ??)) using:

```
Object poll( long long timeout, const TimeUnit& unit )
    throw( InterruptedException ) {

    while( empty ) {
        unit.timedWait(this, timeout);
        ...
    }
}
```

**Parameters:**

*obj* the object to wait on

*timeout* the maximum time to wait.

**Exceptions:**

*InterruptedException* if interrupted while waiting.

*NullPointerException* if the **Synchronizable** (p. 3122) object is null.

**See also:**

`Synchronizable::wait( long long, long long )`

**6.687.3.9** `long long decaf::util::concurrent::TimeUnit::toDays (long long duration)`  
`const [inline]`

Equivalent to `DAYS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration.

**See also:**

`convert` (p. 3208)

**6.687.3.10** `long long decaf::util::concurrent::TimeUnit::toHours (long long duration) const [inline]`

Equivalent to `HOURS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration.

**See also:**

`convert` (p. 3208)

**6.687.3.11** `long long decaf::util::concurrent::TimeUnit::toMicros (long long duration) const [inline]`

Equivalent to `MICROSECONDS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration, or `Long.MIN_VALUE` if conversion would negatively overflow, or `Long.MAX_VALUE` if it would positively overflow.

**See also:**

`convert` (p. 3208)

**6.687.3.12** `long long decaf::util::concurrent::TimeUnit::toMillis (long long duration) const [inline]`

Equivalent to `MILLISECONDS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration, or `Long.MIN_VALUE` if conversion would negatively overflow, or `Long.MAX_VALUE` if it would positively overflow.

**See also:**

`convert` (p. 3208)

**6.687.3.13** `long long decaf::util::concurrent::TimeUnit::toMinutes (long long duration) const [inline]`

Equivalent to `MINUTES.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration.

**See also:**

`convert` (p. 3208)

**6.687.3.14** `long long decaf::util::concurrent::TimeUnit::toNanos (long long duration) const [inline]`

Equivalent to `NANOSECONDS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration, or `Long.MIN_VALUE` if conversion would negatively overflow, or `Long.MAX_VALUE` if it would positively overflow.

**See also:**

`convert` (p. 3208)

**6.687.3.15** `long long decaf::util::concurrent::TimeUnit::toSeconds (long long duration) const [inline]`

Equivalent to `SECONDS.convert(duration, this)`.

**Parameters:**

*duration* the duration

**Returns:**

the converted duration.

**See also:**

`convert` (p. 3208)



**6.687.3.16** `virtual std::string decaf::util::concurrent::TimeUnit::toString () const`  
[virtual]

Converts the **TimeUnit** (p. 3205) type to the Name of the **TimeUnit** (p. 3205).

**Returns:**

String name of the **TimeUnit** (p. 3205)

**6.687.3.17** `static const TimeUnit& decaf::util::concurrent::TimeUnit::valueOf`  
(const std::string & *name*) throw ( de-  
caf::lang::exceptions::IllegalArgumentException )  
[static]

Returns the **TimeUnit** (p. 3205) constant of this type with the specified name. The string must match exactly an identifier used to declare an **TimeUnit** (p. 3205) constant in this type. (Extraaneous whitespace characters are not permitted.)

**Parameters:**

*name* The Name of the **TimeUnit** (p. 3205) constant to be returned.

**Returns:**

A constant reference to the **TimeUnit** (p. 3205) Constant with the given name.

**Exceptions:**

*IllegalArgumentException* if this enum type has no constant with the specified name

## 6.687.4 Field Documentation

**6.687.4.1** `const TimeUnit decaf::util::concurrent::TimeUnit::DAYS` [static]

**6.687.4.2** `const TimeUnit decaf::util::concurrent::TimeUnit::HOURS` [static]

**6.687.4.3** `const TimeUnit decaf::util::concurrent::TimeUnit::MICROSECONDS`  
[static]

**6.687.4.4** `const TimeUnit decaf::util::concurrent::TimeUnit::MILLISECONDS`  
[static]

**6.687.4.5** `const TimeUnit decaf::util::concurrent::TimeUnit::MINUTES` [static]

**6.687.4.6** `const TimeUnit decaf::util::concurrent::TimeUnit::NANOSECONDS`  
[static]

The Actual **TimeUnit** (p. 3205) enumerations.

**6.687.4.7**   `const TimeUnit decaf::util::concurrent::TimeUnit::SECONDS`   `[static]`

**6.687.4.8**   `const TimeUnit* const decaf::util::concurrent::TimeUnit::values[]`  
                  `[static]`

The An Array of **TimeUnit** (p. 3205) Instances.

The documentation for this class was generated from the following file:

- `src/main/decaf/util/concurrent/TimeUnit.h`

## 6.688 cms::Topic Class Reference

An interface encapsulating a provider-specific topic name.

#include <src/main/cms/Topic.h> Inheritance diagram for cms::Topic:

### Public Member Functions

- virtual `~Topic ()`
- virtual `std::string getTopicName () const =0 throw ( CMSEException )`  
*Gets the name of this topic.*

### 6.688.1 Detailed Description

An interface encapsulating a provider-specific topic name. A **Topic** (p.3215) is a Publish / Subscribe type **Destination** (p.1480). All Messages sent to a **Topic** (p.3215) are broadcast to all Subscribers of that **Topic** (p.3215) unless the Subscriber defines a **Message** (p.2163) selector that filters out that **Message** (p.2163).

**Since:**

1.0

### 6.688.2 Constructor & Destructor Documentation

**6.688.2.1** virtual `cms::Topic::~~Topic ()` [inline, virtual]

### 6.688.3 Member Function Documentation

**6.688.3.1** virtual `std::string cms::Topic::getTopicName () const throw ( CMSEException )` [pure virtual]

Gets the name of this topic.

**Returns:**

The topic name.

**Exceptions:**

*CMSEException* (p. 1031) - If an internal error occurs.

Implemented in `activemq::commands::ActiveMQTopic` (p.601).

The documentation for this class was generated from the following file:

- `src/main/cms/Topic.h`

## 6.689 activemq::state::Tracked Class Reference

#include <src/main/activemq/state/Tracked.h> Inheritance diagram for activemq::state::Tracked:

### Public Member Functions

- **Tracked** ()
- **Tracked** (const **Pointer**< **decaf::lang::Runnable** > &runnable)
- virtual **~Tracked** ()
- void **onResponse** ()
- bool **isWaitingForResponse** () const

### 6.689.1 Constructor & Destructor Documentation

**6.689.1.1** **activemq::state::Tracked::Tracked** () [inline]

**6.689.1.2** **activemq::state::Tracked::Tracked** (const **Pointer**< **decaf::lang::Runnable** > & *runnable*)

**6.689.1.3** virtual **activemq::state::Tracked::~~Tracked** () [inline, virtual]

### 6.689.2 Member Function Documentation

**6.689.2.1** bool **activemq::state::Tracked::isWaitingForResponse** () const [inline]

**6.689.2.2** void **activemq::state::Tracked::onResponse** ()

The documentation for this class was generated from the following file:

- src/main/activemq/state/**Tracked.h**

## 6.690 activemq::commands::TransactionId Class Reference

#include <src/main/activemq/commands/TransactionId.h> Inheritance diagram for activemq::commands::TransactionId:

### Public Types

- typedef decaf::lang::PointerComparator< TransactionId > COMPARATOR

### Public Member Functions

- TransactionId ()
- TransactionId (const TransactionId &other)
- virtual ~TransactionId ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual TransactionId \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const DataStructure \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this DataStructure (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const DataStructure \*value) const  
*Compares the DataStructure (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **compareTo** (const TransactionId &value) const
- virtual bool **equals** (const TransactionId &value) const
- virtual bool **operator==** (const TransactionId &value) const
- virtual bool **operator<** (const TransactionId &value) const
- TransactionId & **operator=** (const TransactionId &other)

### Static Public Attributes

- static const unsigned char ID\_TRANSACTIONID = 0

#### 6.690.1 Member Typedef Documentation

**6.690.1.1** typedef decaf::lang::PointerComparator<TransactionId>  
activemq::commands::TransactionId::COMPARATOR

Reimplemented in **activemq::commands::LocalTransactionId** (p. 1994), and **activemq::commands::XATransactionId** (p. 3411).

## 6.690.2 Constructor & Destructor Documentation

**6.690.2.1** `activemq::commands::TransactionId::TransactionId ()`

**6.690.2.2** `activemq::commands::TransactionId::TransactionId (const TransactionId & other)`

**6.690.2.3** `virtual activemq::commands::TransactionId::~~TransactionId ()` [virtual]

## 6.690.3 Member Function Documentation

**6.690.3.1** `virtual TransactionId* activemq::commands::TransactionId::cloneDataStructure ()`  
const [virtual]

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

Reimplemented in `activemq::commands::LocalTransactionId` (p. 1994), and `activemq::commands::XATransactionId` (p. 3411).

**6.690.3.2** `virtual int activemq::commands::TransactionId::compareTo (const TransactionId & value)` const [virtual]

**6.690.3.3** `virtual void activemq::commands::TransactionId::copyDataStructure (const DataStructure * src)` [virtual]

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Implements `activemq::commands::DataStructure` (p. 1462).

Reimplemented in `activemq::commands::LocalTransactionId` (p. 1994), and `activemq::commands::XATransactionId` (p. 3411).

**6.690.3.4** `virtual bool activemq::commands::TransactionId::equals (const TransactionId & value)` const [virtual]

**6.690.3.5** `virtual bool activemq::commands::TransactionId::equals (const DataStructure * value)` const [virtual]

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Implements **activemq::commands::DataStructure** (p. 1463).

Reimplemented in **activemq::commands::LocalTransactionId** (p. 1995), and **activemq::commands::XATransactionId** (p. 3412).

### 6.690.3.6 virtual unsigned char activemq::commands::TransactionId::getDataStructureType() const [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Implements **activemq::commands::DataStructure** (p. 1464).

Reimplemented in **activemq::commands::LocalTransactionId** (p. 1995), and **activemq::commands::XATransactionId** (p. 3412).

### 6.690.3.7 virtual bool activemq::commands::TransactionId::operator< (const TransactionId & value) const [virtual]

### 6.690.3.8 TransactionId& activemq::commands::TransactionId::operator= (const TransactionId & other)

### 6.690.3.9 virtual bool activemq::commands::TransactionId::operator== (const TransactionId & value) const [virtual]

### 6.690.3.10 virtual std::string activemq::commands::TransactionId::toString () const [virtual]

Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseDataStructure** (p. 718).

Reimplemented in **activemq::commands::LocalTransactionId** (p. 1996), and **activemq::commands::XATransactionId** (p. 3413).

## 6.690.4 Field Documentation

### 6.690.4.1 const unsigned char activemq::commands::TransactionId::ID\_TRANSACTIONID = 0 [static]

The documentation for this class was generated from the following file:

- src/main/activemq/commands/**TransactionId.h**

## 6.691 activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3220).

#include <src/main/activemq/wireformat/openwire/marshal/v2/TransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller:

### Public Member Functions

- **TransactionIdMarshaller** ()
- virtual **~TransactionIdMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.691.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3220). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.691.2 Constructor & Destructor Documentation

**6.691.2.1** `activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::TransactionIdMarshaller()` [inline]

**6.691.2.2** `virtual activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::~~TransactionIdMarshaller()` [inline, virtual]

## 6.691.3 Member Function Documentation

**6.691.3.1** `virtual void activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller` (p. 1998), and `activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller` (p. 3416).

**6.691.3.2** `virtual void activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller` (p. 1999), and `activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller` (p. 3417).

**6.691.3.3** `virtual int activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller` (p. 1999), and `activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller` (p. 3417).

**6.691.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

## 6.691 activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller Class Reference 3227

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller** (p. 1999), and **activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller** (p. 3417).

```
6.691.3.5 virtual void ac-
    tivemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller::tightUnmarshal
    (OpenWireFormat * wireFormat, commands::DataStructure
    * dataStructure, decaf::io::DataInputStream * dataIn,
    utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

### Exceptions:

- IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller** (p. 2000), and **activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller** (p. 3418).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v2/TransactionIdMarshaller.h`

## 6.692 activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3224).

#include <src/main/activemq/wireformat/openwire/marshal/v1/TransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller:

### Public Member Functions

- **TransactionIdMarshaller** ()
- virtual **~TransactionIdMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.692.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3224). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.692.2 Constructor & Destructor Documentation

**6.692.2.1** `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::TransactionIdMarshaller()` [inline]

**6.692.2.2** `virtual activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::~~TransactionIdMarshaller()` [inline, virtual]

## 6.692.3 Member Function Documentation

**6.692.3.1** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller` (p. 2010), and `activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller` (p. 3428).

**6.692.3.2** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller` (p. 2011), and `activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller` (p. 3429).

**6.692.3.3** `virtual int activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller` (p. 2011), and `activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller` (p. 3429).

**6.692.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller** (p. 2011), and **activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller** (p. 3429).

**6.692.3.5** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

- IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller** (p. 2012), and **activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller** (p. 3430).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v1/TransactionIdMarshaller.h`

## 6.693 activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3228).

#include <src/main/activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller:

### Public Member Functions

- **TransactionIdMarshaller** ()
- virtual **~TransactionIdMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.693.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3228). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.693.2 Constructor & Destructor Documentation

**6.693.2.1** `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::TransactionIdMarshaller()` [inline]

**6.693.2.2** `virtual activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::~~TransactionIdMarshaller()` [inline, virtual]

## 6.693.3 Member Function Documentation

**6.693.3.1** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller` (p. 2006), and `activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller` (p. 3424).

**6.693.3.2** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller` (p. 2007), and `activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller` (p. 3425).

**6.693.3.3** `virtual int activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller` (p. 2007), and `activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller` (p. 3425).

**6.693.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller** (p. 2007), and **activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller** (p. 3425).

**6.693.3.5** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller::tightUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn, utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]`

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

Reimplemented in **activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller** (p. 2008), and **activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller** (p. 3426).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h`

## 6.694 activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3232).

#include <src/main/activemq/wireformat/openwire/marshal/v5/TransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller:

### Public Member Functions

- **TransactionIdMarshaller** ()
- virtual **~TransactionIdMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.694.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3232). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.694.2 Constructor & Destructor Documentation

**6.694.2.1** `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::TransactionIdMarshaller()` [inline]

**6.694.2.2** `virtual activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::~~TransactionIdMarshaller()` [inline, virtual]

## 6.694.3 Member Function Documentation

**6.694.3.1** `virtual void activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2014), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3432).

**6.694.3.2** `virtual void activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2015), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).

**6.694.3.3** `virtual int activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2015), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).

**6.694.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

## 6.694 activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller Class Reference 3239

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2015), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3433).

```
6.694.3.5 virtual void ac-
      tivemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller::tightUnmarshal
      (OpenWireFormat * wireFormat, commands::DataStructure
      * dataStructure, decaf::io::DataInputStream * dataIn,
      utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

### Parameters:

- wireFormat* - describes the wire format of the broker.
- dataStructure* - Object to be un-marshaled.
- dataIn* - BinaryReader that provides that data.
- bs* - BooleanStream stream used to unpack bits from the wire.

### Exceptions:

- IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller` (p. 2016), and `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller` (p. 3434).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v5/TransactionIdMarshaller.h`

## 6.695 activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3236).

#include <src/main/activemq/wireformat/openwire/marshal/v3/TransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller:

### Public Member Functions

- **TransactionIdMarshaller** ()
- virtual **~TransactionIdMarshaller** ()
- virtual void **tightUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual int **tightMarshal1** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write the booleans that this object uses to a BooleanStream.*

- virtual void **tightMarshal2** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

- virtual void **looseUnmarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( **decaf::io::IOException** )

*Un-marshal an object instance from the data input stream.*

- virtual void **looseMarshal** (**OpenWireFormat** \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( **decaf::io::IOException** )

*Write a object instance to data output stream.*

### 6.695.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3236). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.695.2 Constructor & Destructor Documentation

**6.695.2.1** `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::TransactionIdMarshaller()` [inline]

**6.695.2.2** `virtual activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::~~TransactionIdMarshaller()` [inline, virtual]

## 6.695.3 Member Function Documentation

**6.695.3.1** `virtual void activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller` (p. 2002), and `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3420).

**6.695.3.2** `virtual void activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::looseUnmarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw (decaf::io::IOException)` [virtual]

Un-marshal an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller` (p. 2003), and `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3421).

**6.695.3.3** `virtual int activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller` (p. 2003), and `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3421).

**6.695.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::tightMarshal2 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryReader that provides that data sink

*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

## 6.695 activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller Class Reference 3243

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1448).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller` (p. 2003), and `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3421).

```
6.695.3.5 virtual void ac-
      tivemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller::tightUnmarshal
      (OpenWireFormat * wireFormat, commands::DataStructure
      * dataStructure, decaf::io::DataInputStream * dataIn,
      utils::BooleanStream * bs) throw ( decaf::io::IOException ) [virtual]
```

Un-marshall an object instance from the data input stream.

### Parameters:

*wireFormat* - describes the wire format of the broker.

*dataStructure* - Object to be un-marshaled.

*dataIn* - BinaryReader that provides that data.

*bs* - BooleanStream stream used to unpack bits from the wire.

### Exceptions:

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1454).

Reimplemented in `activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller` (p. 2004), and `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller` (p. 3422).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/openwire/marshal/v3/TransactionIdMarshaller.h`

## 6.696 activemq::commands::TransactionInfo Class Reference

#include <src/main/activemq/commands/TransactionInfo.h> Inheritance diagram for activemq::commands::TransactionInfo:

### Public Member Functions

- **TransactionInfo** ()
- virtual **~TransactionInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **TransactionInfo \* cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual const **Pointer**< **ConnectionId** > & **getConnectionId** () const
- virtual **Pointer**< **ConnectionId** > & **getConnectionId** ()
- virtual void **setConnectionId** (const **Pointer**< **ConnectionId** > &connectionId)
- virtual const **Pointer**< **TransactionId** > & **getTransactionId** () const
- virtual **Pointer**< **TransactionId** > & **getTransactionId** ()
- virtual void **setTransactionId** (const **Pointer**< **TransactionId** > &transactionId)
- virtual unsigned char **getType** () const
- virtual void **setType** (unsigned char type)
- virtual bool **isTransactionInfo** () const
- virtual **Pointer**< **Command** > **visit** (activemq::state::CommandVisitor \*visitor) throw ( exceptions::ActiveMQException )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*

### Static Public Attributes

- static const unsigned char **ID\_TRANSACTIONINFO** = 7

### Protected Member Functions

- **TransactionInfo** (const **TransactionInfo** &)
- **TransactionInfo** & **operator=** (const **TransactionInfo** &)

## Protected Attributes

- `Pointer< ConnectionId > connectionId`
- `Pointer< TransactionId > transactionId`
- unsigned char `type`

## 6.696.1 Constructor & Destructor Documentation

**6.696.1.1** `activemq::commands::TransactionInfo::TransactionInfo (const TransactionInfo &) [inline, protected]`

**6.696.1.2** `activemq::commands::TransactionInfo::TransactionInfo ()`

**6.696.1.3** `virtual activemq::commands::TransactionInfo::~~TransactionInfo () [virtual]`

## 6.696.2 Member Function Documentation

**6.696.2.1** `virtual TransactionInfo* activemq::commands::TransactionInfo::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

### Returns:

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.696.2.2** `virtual void activemq::commands::TransactionInfo::copyDataStructure (const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.

### Parameters:

*src* - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.696.2.3** `virtual bool activemq::commands::TransactionInfo::equals (const DataStructure * value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

### Returns:

true if `DataStructure`'s are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

- 6.696.2.4** `virtual Pointer<ConnectionId>& activemq::commands::TransactionInfo::getConnectionId ()`  
[virtual]
- 6.696.2.5** `virtual const Pointer<ConnectionId>& activemq::commands::TransactionInfo::getConnectionId ()`  
const [virtual]
- 6.696.2.6** `virtual unsigned char activemq::commands::TransactionInfo::getDataSetType () const`  
[virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

- 6.696.2.7** `virtual Pointer<TransactionId>& activemq::commands::TransactionInfo::getTransactionId ()`  
[virtual]
- 6.696.2.8** `virtual const Pointer<TransactionId>& activemq::commands::TransactionInfo::getTransactionId ()`  
const [virtual]
- 6.696.2.9** `virtual unsigned char activemq::commands::TransactionInfo::getType ()`  
const [virtual]
- 6.696.2.10** `virtual bool activemq::commands::TransactionInfo::isTransactionInfo ()`  
const [inline, virtual]

**Returns:**

an answer of true to the **isTransactionInfo()** (p. 3242) query.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

- 6.696.2.11 TransactionInfo& activemq::commands::TransactionInfo::operator=(const TransactionInfo &) [inline, protected]
- 6.696.2.12 virtual void activemq::commands::TransactionInfo::setConnectionId(const Pointer< ConnectionId > & *connectionId*) [virtual]
- 6.696.2.13 virtual void activemq::commands::TransactionInfo::setTransactionId(const Pointer< TransactionId > & *transactionId*) [virtual]
- 6.696.2.14 virtual void activemq::commands::TransactionInfo::setType (unsigned char *type*) [virtual]
- 6.696.2.15 virtual std::string activemq::commands::TransactionInfo::toString () const [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

- 6.696.2.16 virtual Pointer<Command> activemq::commands::TransactionInfo::visit(activemq::state::CommandVisitor \* *visitor*) throw (exceptions::ActiveMQException) [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p.1067).

## 6.696.3 Field Documentation

- 6.696.3.1 Pointer<ConnectionId> activemq::commands::TransactionInfo::connectionId [protected]
- 6.696.3.2 const unsigned char activemq::commands::TransactionInfo::ID\_TRANSACTIONINFO = 7 [static]
- 6.696.3.3 Pointer<TransactionId> activemq::commands::TransactionInfo::transactionId [protected]
- 6.696.3.4 unsigned char activemq::commands::TransactionInfo::type [protected]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/TransactionInfo.h`



## 6.697 activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3245).

#include <src/main/activemq/wireformat/openwire/marshal/v5/TransactionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller:

### Public Member Functions

- **TransactionInfoMarshaller** ()
- virtual **~TransactionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.697.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3245). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.697.2 Constructor & Destructor Documentation

**6.697.2.1** `activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::TransactionInfoMarshaller()` [inline]

**6.697.2.2** `virtual activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::~~TransactionInfoMarshaller()` [inline, virtual]

## 6.697.3 Member Function Documentation

**6.697.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.697.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.697.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 679).

**6.697.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 680).

**6.697.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 681).

**6.697.3.6** virtual void activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 682).

**6.697.3.7** virtual void activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller** (p. 683).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**TransactionInfoMarshaller.h**

## 6.698 activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3249).

#include <src/main/activemq/wireformat/openwire/marshal/v3/TransactionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller:

### Public Member Functions

- **TransactionInfoMarshaller** ()
- virtual **~TransactionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.698.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3249). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.698.2 Constructor & Destructor Documentation

**6.698.2.1** `activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::TransactionInfoMarshaller()` [inline]

**6.698.2.2** `virtual activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::~~TransactionInfoMarshaller()` [inline, virtual]

## 6.698.3 Member Function Documentation

**6.698.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.698.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.698.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 658).

**6.698.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 659).

**6.698.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 660).

**6.698.3.6** virtual void activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 661).

**6.698.3.7** virtual void activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller** (p. 662).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/TransactionInfoMarshaller.h



## 6.699 activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3253).

#include <src/main/activemq/wireformat/openwire/marshal/v1/TransactionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller:

### Public Member Functions

- **TransactionInfoMarshaller** ()
- virtual **~TransactionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.699.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3253). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.699.2 Constructor & Destructor Documentation

**6.699.2.1** `activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::TransactionInfoMarshaller()` [inline]

**6.699.2.2** `virtual activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::~~TransactionInfoMarshaller()` [inline, virtual]

## 6.699.3 Member Function Documentation

**6.699.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.699.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.699.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 665).

**6.699.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 666).

**6.699.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 667).

**6.699.3.6** virtual void activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 668).

**6.699.3.7** virtual void activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller** (p. 669).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/TransactionInfoMarshaller.h

## 6.700 activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3257).

#include <src/main/activemq/wireformat/openwire/marshal/v4/TransactionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller:

### Public Member Functions

- **TransactionInfoMarshaller** ()
- virtual **~TransactionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.700.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3257). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.700.2 Constructor & Destructor Documentation

**6.700.2.1** `activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::TransactionInfoMarshaller()` [inline]

**6.700.2.2** `virtual activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::~~TransactionInfoMarshaller()` [inline, virtual]

## 6.700.3 Member Function Documentation

**6.700.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.700.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.700.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 672).

**6.700.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 673).

**6.700.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 674).

**6.700.3.6** virtual void activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 675).

**6.700.3.7** virtual void activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller** (p. 676).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/TransactionInfoMarshaller.h



## 6.701 activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3261).

#include <src/main/activemq/wireformat/openwire/marshal/v2/TransactionInfoMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller:

### Public Member Functions

- **TransactionInfoMarshaller** ()
- virtual **~TransactionInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.701.1 Detailed Description

Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3261). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.701.2 Constructor & Destructor Documentation

**6.701.2.1** `activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::TransactionInfoMarshaller()` [inline]

**6.701.2.2** `virtual activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::~~TransactionInfoMarshaller()` [inline, virtual]

## 6.701.3 Member Function Documentation

**6.701.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.701.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.701.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 686).

**6.701.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 687).

**6.701.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 688).

**6.701.3.6** virtual void activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 689).

**6.701.3.7** virtual void activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller** (p. 690).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/TransactionInfoMarshaller.h

## 6.702 activemq::state::TransactionState Class Reference

```
#include <src/main/activemq/state/TransactionState.h>
```

### Public Member Functions

- **TransactionState** (const **Pointer**< **TransactionId** > &id)
- virtual **~TransactionState** ()
- **std::string toString** () const
- void **addCommand** (const **Pointer**< **Command** > &operation)
- void **checkShutdown** () const
- void **shutdown** ()
- const **StlList**< **Pointer**< **Command** > > &**getCommands** () const
- const **Pointer**< **TransactionId** > &**getId** () const
- void **setPrepared** (bool prepared)
- bool **isPrepared** () const
- void **setPreparedResult** (int preparedResult)
- int **getPreparedResult** () const

## 6.702.1 Constructor & Destructor Documentation

6.702.1.1 `activemq::state::TransactionState::TransactionState (const Pointer< TransactionId > & id)`

6.702.1.2 `virtual activemq::state::TransactionState::~~TransactionState ()`  
[virtual]

## 6.702.2 Member Function Documentation

6.702.2.1 `void activemq::state::TransactionState::addCommand (const Pointer< Command > & operation)`

6.702.2.2 `void activemq::state::TransactionState::checkShutdown () const`

6.702.2.3 `const StlList< Pointer<Command> >& activemq::state::TransactionState::getCommands () const`  
[inline]

6.702.2.4 `const Pointer<TransactionId>& activemq::state::TransactionState::getId () const` [inline]

6.702.2.5 `int activemq::state::TransactionState::getPreparedResult () const`  
[inline]

6.702.2.6 `bool activemq::state::TransactionState::isPrepared () const` [inline]

6.702.2.7 `void activemq::state::TransactionState::setPrepared (bool prepared)`  
[inline]

6.702.2.8 `void activemq::state::TransactionState::setPreparedResult (int preparedResult)` [inline]

6.702.2.9 `void activemq::state::TransactionState::shutdown ()` [inline]

6.702.2.10 `std::string activemq::state::TransactionState::toString () const`

The documentation for this class was generated from the following file:

- `src/main/activemq/state/TransactionState.h`

## 6.703 decaf::internal::util::concurrent::Transferer< E > Class Template Reference

Shared internal API for dual stacks and queues.

`#include <src/main/decaf/internal/util/concurrent/Transferer.h>`Inheritance diagram for decaf::internal::util::concurrent::Transferer< E >:

### 6.703.1 Detailed Description

`template<typename E> class decaf::internal::util::concurrent::Transferer< E >`

Shared internal API for dual stacks and queues.

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/util/concurrent/Transferer.h`

## 6.704    `decaf::internal::util::concurrent::TransferQueue< E >` Class Template Reference

This extends Scherer-Scott dual queue algorithm, differing, among other ways, by using modes within nodes rather than marked pointers.

`#include <src/main/decaf/internal/util/concurrent/TransferQueue.h>`Inheritance diagram for `decaf::internal::util::concurrent::TransferQueue< E >`:

### Public Member Functions

- `TransferQueue ()`

*Node class for **TransferQueue** (p. 3268).*

- `virtual ~TransferQueue ()`
- `virtual void transfer (E *e, bool timed, long long nanos) throw ( decaf::util::concurrent::TimeoutException, decaf::lang::exceptions::InterruptedException )`

*Performs a put.*

- `virtual E * transfer (bool timed, long long nanos) throw ( decaf::util::concurrent::TimeoutException, decaf::lang::exceptions::InterruptedException )`

*Performs a take.*

### 6.704.1 Detailed Description

`template<typename E> class decaf::internal::util::concurrent::TransferQueue< E >`

This extends Scherer-Scott dual queue algorithm, differing, among other ways, by using modes within nodes rather than marked pointers. The algorithm is a little simpler than that for stacks because fulfillers do not need explicit nodes, and matching is done by CAS'ing `QNode.item` field from non-null to null (for put) or vice versa (for take).

### 6.704.2 Constructor & Destructor Documentation

#### 6.704.2.1 `template<typename E> decaf::internal::util::concurrent::TransferQueue< E >::TransferQueue () [inline]`

Node class for **TransferQueue** (p. 3268). Tries to cancel by CAS'ing ref to NULL if that succeeds then we mark as cancelled. Returns true if this node is known to be off the queue because its next pointer has been forgotten due to an `advanceHead` operation.



6.704.2.2 `template<typename E > virtual  
decaf::internal::util::concurrent::TransferQueue< E  
>::~~TransferQueue () [inline, virtual]`

### 6.704.3 Member Function Documentation

6.704.3.1 `template<typename E > virtual E*  
decaf::internal::util::concurrent::TransferQueue< E  
>::transfer (bool timed, long long nanos) throw  
( decaf::util::concurrent::TimeoutException, de-  
caf::lang::exceptions::InterruptedException ) [inline,  
virtual]`

Performs a take.

#### Parameters:

*timed* if this operation should timeout  
*nanos* the timeout, in nanoseconds

#### Returns:

the item provided or received;

#### Exceptions:

**TimeoutException** if the operation timed out waiting for the producer to offer an item.  
**InterruptedException** if the thread was interrupted while waiting for the producer to offer an item.

Implements `decaf::internal::util::concurrent::Transferer< E >` (p. 3267).

6.704.3.2 `template<typename E > virtual void  
decaf::internal::util::concurrent::TransferQueue< E  
>::transfer (E * e, bool timed, long long nanos)  
throw ( decaf::util::concurrent::TimeoutException,  
decaf::lang::exceptions::InterruptedException ) [inline, virtual]`

Performs a put.

#### Parameters:

*e* the item to be handed to a consumer;  
*timed* if this operation should timeout  
*nanos* the timeout, in nanoseconds

#### Exceptions:

**TimeoutException** if the operation timed out waiting for the consumer to accept the item offered.  
**InterruptedException** if the thread was interrupted while waiting for the consumer to accept the item offered.

Implements **decaf::internal::util::concurrent::Transferer< E >** (p. 3267).

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/util/concurrent/TransferQueue.h`

## 6.705 decaf::internal::util::concurrent::TransferStack< E > Class Template Reference

#include <src/main/decaf/internal/util/concurrent/TransferStack.h> Inheritance diagram for decaf::internal::util::concurrent::TransferStack< E >:

### Public Member Functions

- **TransferStack** ()
- virtual **~TransferStack** ()
- virtual void **transfer** (E \*e, bool timed, long long nanos) throw ( decaf::util::concurrent::TimeoutException, decaf::lang::exceptions::InterruptedException )  
*Performs a put.*
- virtual E \* **transfer** (bool timed, long long nanos) throw ( decaf::util::concurrent::TimeoutException, decaf::lang::exceptions::InterruptedException )  
*Performs a take.*

```
template<typename E> class decaf::internal::util::concurrent::TransferStack< E >
```

### 6.705.1 Constructor & Destructor Documentation

- 6.705.1.1** template<typename E > decaf::internal::util::concurrent::TransferStack< E >::TransferStack () [inline]
- 6.705.1.2** template<typename E > virtual decaf::internal::util::concurrent::TransferStack< E >::~~TransferStack () [inline, virtual]

### 6.705.2 Member Function Documentation

- 6.705.2.1** template<typename E > virtual E\* decaf::internal::util::concurrent::TransferStack< E >::transfer (bool *timed*, long long *nanos*) throw ( decaf::util::concurrent::TimeoutException, decaf::lang::exceptions::InterruptedException ) [inline, virtual]

Performs a take.

#### Parameters:

*timed* if this operation should timeout  
*nanos* the timeout, in nanoseconds

#### Returns:

the item provided or received;

**Exceptions:**

***TimeoutException*** if the operation timed out waiting for the producer to offer an item.

***InterruptedException*** if the thread was interrupted while waiting for the producer to offer an item.

Implements **decaf::internal::util::concurrent::Transferer< E >** (p. 3267).

```
6.705.2.2  template<typename E > virtual void
           decaf::internal::util::concurrent::TransferStack< E
           >::transfer (E * e,  bool timed,  long long nanos)
           throw ( decaf::util::concurrent::TimeoutException,
           decaf::lang::exceptions::InterruptedException ) [inline, virtual]
```

Performs a put.

**Parameters:**

*e* the item to be handed to a consumer;

***timed*** if this operation should timeout

***nanos*** the timeout, in nanoseconds

**Exceptions:**

***TimeoutException*** if the operation timed out waiting for the consumer to accept the item offered.

***InterruptedException*** if the thread was interrupted while waiting for the consumer to accept the item offered.

Implements **decaf::internal::util::concurrent::Transferer< E >** (p. 3267).

The documentation for this class was generated from the following file:

- src/main/decaf/internal/util/concurrent/**TransferStack.h**

## 6.706 activemq::transport::Transport Class Reference

Interface for a transport layer for command objects.

#include <src/main/activemq/transport/Transport.h> Inheritance diagram for activemq::transport::Transport:

### Public Member Functions

- virtual **~Transport** ()
- virtual void **start** ()=0 throw ( decaf::io::IOException )  
*Starts the **Transport** (p. 3273), the send methods of a **Transport** (p. 3273) will throw an exception if used before the **Transport** (p. 3273) is started.*
- virtual void **stop** ()=0 throw ( decaf::io::IOException )  
*Stops the **Transport** (p. 3273).*
- virtual void **oneway** (const **Pointer**< **Command** > &command)=0 throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command)=0 throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given command to the broker and then waits for the response.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout)=0 throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )  
*Sends the given command to the broker and then waits for the response.*
- virtual void **setWireFormat** (const **Pointer**< **wireformat::WireFormat** > &wireFormat)=0  
*Sets the **WireFormat** instance to use.*
- virtual void **setTransportListener** (**TransportListener** \*listener)=0  
*Sets the observer of asynchronous events from this transport.*
- virtual **TransportListener** \* **getTransportListener** () const =0  
*Gets the observer of asynchronous events from this transport.*
- virtual **Transport** \* **narrow** (const std::type\_info &typeId)=0  
*Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.*
- virtual bool **isFaultTolerant** () const =0  
*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*
- virtual bool **isConnected** () const =0

*Is the **Transport** (p. 3273) Connected to its Broker.*

- virtual bool **isClosed** () const =0

*Has the **Transport** (p. 3273) been shutdown and no longer usable.*

- virtual std::string **getRemoteAddress** () const =0
- virtual void **reconnect** (const **decaf::net::URI** &uri)=0 throw ( decaf::io::IOException )  
*reconnect to another location*

### 6.706.1 Detailed Description

Interface for a transport layer for command objects. Callers can send oneway messages or make synchronous requests. Non-response messages will be delivered to the specified listener object upon receipt. A user of the **Transport** (p. 3273) can set an exception listener to be notified of errors that occurs in Threads that the **Transport** (p. 3273) layer runs. Transports should be given an instance of a WireFormat object when created so that they can turn the built in Commands to / from the required wire format encoding.

### 6.706.2 Constructor & Destructor Documentation

**6.706.2.1** virtual **activemq::transport::Transport::~~Transport** () [inline, virtual]

### 6.706.3 Member Function Documentation

**6.706.3.1** virtual std::string **activemq::transport::Transport::getRemoteAddress** ()  
const [pure virtual]

#### Returns:

the remote address for this connection

Implemented in **activemq::transport::failover::FailoverTransport** (p.1616), **activemq::transport::IOTransport** (p.1825), **activemq::transport::mock::MockTransport** (p.2374), and **activemq::transport::TransportFilter** (p.3284).

**6.706.3.2** virtual **TransportListener\*** **activemq::transport::Transport::getTransportListener** ()  
const [pure virtual]

Gets the observer of asynchronous events from this transport.

#### Returns:

the listener of transport events.

Implemented in **activemq::transport::failover::FailoverTransport** (p.1616), **activemq::transport::IOTransport** (p.1825), **activemq::transport::mock::MockTransport** (p.2375), and **activemq::transport::TransportFilter** (p.3284).

### 6.706.3.3 virtual bool activemq::transport::Transport::isClosed () const [pure virtual]

Has the **Transport** (p. 3273) been shutdown and no longer usable.

#### Returns:

true if the **Transport** (p. 3273)

Implemented in **activemq::transport::failover::FailoverTransport** (p. 1617), **activemq::transport::IOTransport** (p. 1825), **activemq::transport::mock::MockTransport** (p. 2375), **activemq::transport::tcp::TcpTransport** (p. 3161), and **activemq::transport::TransportFilter** (p. 3284).

### 6.706.3.4 virtual bool activemq::transport::Transport::isConnected () const [pure virtual]

Is the **Transport** (p. 3273) Connected to its Broker.

#### Returns:

true if a connection has been made.

Implemented in **activemq::transport::failover::FailoverTransport** (p. 1617), **activemq::transport::IOTransport** (p. 1826), **activemq::transport::mock::MockTransport** (p. 2375), **activemq::transport::tcp::TcpTransport** (p. 3161), and **activemq::transport::TransportFilter** (p. 3284).

### 6.706.3.5 virtual bool activemq::transport::Transport::isFaultTolerant () const [pure virtual]

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

#### Returns:

true if the **Transport** (p. 3273) is fault tolerant.

Implemented in **activemq::transport::failover::FailoverTransport** (p. 1617), **activemq::transport::IOTransport** (p. 1826), **activemq::transport::mock::MockTransport** (p. 2376), **activemq::transport::tcp::TcpTransport** (p. 3162), and **activemq::transport::TransportFilter** (p. 3284).

### 6.706.3.6 virtual Transport\* activemq::transport::Transport::narrow (const std::type\_info & *typeId*) [pure virtual]

Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.

#### Parameters:

*typeId* - The type\_info of the Object we are searching for.

#### Returns:

the requested Object. or NULL if its not in this chain.

Implemented in `activemq::transport::failover::FailoverTransport` (p. 1618), `activemq::transport::IOTransport` (p. 1826), `activemq::transport::mock::MockTransport` (p. 2376), and `activemq::transport::TransportFilter` (p. 3285).

Referenced by `activemq::transport::failover::FailoverTransport::narrow()`.

**6.706.3.7** `virtual void activemq::transport::Transport::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Sends a one-way command. Does not wait for any response from the broker.

**Parameters:**

*command* the command to be sent.

**Exceptions:**

*IOException* if an exception occurs during writing of the command.

*UnsupportedOperationException* if this method is not implemented by this transport.

Implemented in `activemq::transport::correlator::ResponseCorrelator` (p. 2788), `activemq::transport::failover::FailoverTransport` (p. 1619), `activemq::transport::inactivity::InactivityMonitor` (p. 1735), `activemq::transport::IOTransport` (p. 1826), `activemq::transport::logging::LoggingTransport` (p. 2043), `activemq::transport::mock::MockTransport` (p. 2376), `activemq::transport::TransportFilter` (p. 3285), and `activemq::wireformat::openwire::OpenWireFormatNegotiator` (p. 2463).

**6.706.3.8** `virtual void activemq::transport::Transport::reconnect (const decaf::net::URI & uri) throw ( decaf::io::IOException ) [pure virtual]`

reconnect to another location

**Parameters:**

*uri*

**Exceptions:**

*IOException* on failure of if not supported

Implemented in `activemq::transport::failover::FailoverTransport` (p. 1619), and `activemq::transport::TransportFilter` (p. 3286).

**6.706.3.9** `virtual Pointer<Response> activemq::transport::Transport::request (const Pointer< Command > & command, unsigned int timeout) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [pure virtual]`

Sends the given command to the broker and then waits for the response.



**Parameters:**

*command* - The command to be sent.  
*timeout* - The time to wait for this response.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.  
*UnsupportedOperationException* if this method is not implemented by this transport.

Implemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2789), **activemq::transport::failover::FailoverTransport** (p. 1620), **activemq::transport::IOTransport** (p. 1827), **activemq::transport::logging::LoggingTransport** (p. 2043), **activemq::transport::mock::MockTransport** (p. 2377), **activemq::transport::TransportFilter** (p. 3286), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2464).

```
6.706.3.10  virtual Pointer<Response> activemq::transport::Transport::request
              (const Pointer< Command > & command)
              throw ( decaf::io::IOException, de-
                      caf::lang::exceptions::UnsupportedOperationException )
              [pure virtual]
```

Sends the given command to the broker and then waits for the response.

**Parameters:**

*command* the command to be sent.

**Returns:**

the response from the broker.

**Exceptions:**

*IOException* if an exception occurs during the read of the command.  
*UnsupportedOperationException* if this method is not implemented by this transport.

Implemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2789), **activemq::transport::failover::FailoverTransport** (p. 1620), **activemq::transport::IOTransport** (p. 1827), **activemq::transport::logging::LoggingTransport** (p. 2044), **activemq::transport::mock::MockTransport** (p. 2377), **activemq::transport::TransportFilter** (p. 3287), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2464).

```
6.706.3.11  virtual void activemq::transport::Transport::setTransportListener
              (TransportListener * listener) [pure virtual]
```

Sets the observer of asynchronous events from this transport.

**Parameters:**

*listener* the listener of transport events.

Implemented in `activemq::transport::failover::FailoverTransport` (p.1622), `activemq::transport::IOTransport` (p.1828), `activemq::transport::mock::MockTransport` (p.2380), and `activemq::transport::TransportFilter` (p.3287).

**6.706.3.12** `virtual void activemq::transport::Transport::setWireFormat (const Pointer< wireformat::WireFormat > & wireFormat) [pure virtual]`

Sets the WireFormat instance to use.

**Parameters:**

*wireFormat* The WireFormat the object used to encode / decode commands.

Implemented in `activemq::transport::IOTransport` (p.1828), and `activemq::transport::TransportFilter` (p.3287).

**6.706.3.13** `virtual void activemq::transport::Transport::start () throw ( decaf::io::IOException ) [pure virtual]`

Starts the **Transport** (p.3273), the send methods of a **Transport** (p.3273) will throw an exception if used before the **Transport** (p.3273) is started.

**Exceptions:**

*IOException* if and error occurs while starting the **Transport** (p.3273).

Implemented in `activemq::transport::correlator::ResponseCorrelator` (p.2790), `activemq::transport::failover::FailoverTransport` (p.1623), `activemq::transport::IOTransport` (p.1828), `activemq::transport::mock::MockTransport` (p.2380), `activemq::transport::TransportFilter` (p.3287), and `activemq::wireformat::openwire::OpenWireFormatNegotiator` (p.2465).

**6.706.3.14** `virtual void activemq::transport::Transport::stop () throw ( decaf::io::IOException ) [pure virtual]`

Stops the **Transport** (p.3273).

**Exceptions:**

*IOException* if an error occurs while stopping the transport.

Implemented in `activemq::transport::failover::FailoverTransport` (p.1623), `activemq::transport::IOTransport` (p.1829), `activemq::transport::mock::MockTransport` (p.2380), and `activemq::transport::TransportFilter` (p.3288).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/Transport.h`

## 6.707 activemq::transport::TransportFactory Class Reference

Defines the interface for Factories that create Transports or TransportFilters.

#include <src/main/activemq/transport/TransportFactory.h> Inheritance diagram for activemq::transport::TransportFactory:

### Public Member Functions

- virtual **~TransportFactory** ()
- virtual **Pointer< Transport > create** (const **decaf::net::URI** &location)=0 throw ( exceptions::ActiveMQException )  
*Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.*
- virtual **Pointer< Transport > createComposite** (const **decaf::net::URI** &location)=0 throw ( exceptions::ActiveMQException )  
*Creates a slimed down **Transport** (p. 3273) instance which can be used in composite transport instances.*

### 6.707.1 Detailed Description

Defines the interface for Factories that create Transports or TransportFilters. The factory should be able to create either a completely configured **Transport** (p. 3273) meaning that it has all the appropriate filters wrapping it, or it should be able to create a slimed down version that is used in composite transports like Failover or Fanout.

Since:

3.0

### 6.707.2 Constructor & Destructor Documentation

- 6.707.2.1** virtual **activemq::transport::TransportFactory::~~TransportFactory** ()  
 [inline, virtual]

### 6.707.3 Member Function Documentation

- 6.707.3.1** virtual **Pointer<Transport> activemq::transport::TransportFactory::create** (const **decaf::net::URI** & *location*) throw ( exceptions::ActiveMQException )  
 [pure virtual]

Creates a fully configured **Transport** (p. 3273) instance which could be a chain of filters and transports.

Parameters:

*location* - URI location to connect to plus any properties to assign.

**Exceptions:**

*ActiveMQException* if an error occurs

Implemented in `activemq::transport::failover::FailoverTransportFactory` (p. 1625), `activemq::transport::mock::MockTransportFactory` (p. 2383), and `activemq::transport::tcp::TcpTransportFactory` (p. 3164).

**6.707.3.2** `virtual Pointer<Transport> activemq::transport::TransportFactory::createComposite (const decaf::net::URI & location) throw ( exceptions::ActiveMQException )`  
[pure virtual]

Creates a slimmed down **Transport** (p. 3273) instance which can be used in composite transport instances.

**Parameters:**

*location* - URI location to connect to plus any properties to assign.

**Exceptions:**

*ActiveMQException* if an error occurs

Implemented in `activemq::transport::failover::FailoverTransportFactory` (p. 1625), `activemq::transport::mock::MockTransportFactory` (p. 2383), and `activemq::transport::tcp::TcpTransportFactory` (p. 3164).

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/TransportFactory.h`

## 6.708 activemq::transport::TransportFilter Class Reference

A filter on the transport layer.

#include <src/main/activemq/transport/TransportFilter.h> Inheritance diagram for activemq::transport::TransportFilter:

### Public Member Functions

- **TransportFilter** (const **Pointer**< **Transport** > &next)  
*Constructor.*
- virtual **~TransportFilter** ()
- virtual void **onCommand** (const **Pointer**< **Command** > &command)  
*Event handler for the receipt of a command.*
- virtual void **onException** (const **decaf::lang::Exception** &ex)  
*Event handler for an exception from a command transport.*
- virtual void **transportInterrupted** ()  
*The transport has suffered an interruption from which it hopes to recover.*
- virtual void **transportResumed** ()  
*The transport has resumed after an interruption.*
- virtual void **oneway** (const **Pointer**< **Command** > &command) throw ( **decaf::io::IOException**, **decaf::lang::exceptions::UnsupportedOperationException** )  
*Sends a one-way command.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command) throw ( **decaf::io::IOException**, **decaf::lang::exceptions::UnsupportedOperationException** )  
*Not supported by this class - throws an exception.*
- virtual **Pointer**< **Response** > **request** (const **Pointer**< **Command** > &command, unsigned int timeout) throw ( **decaf::io::IOException**, **decaf::lang::exceptions::UnsupportedOperationException** )  
*Not supported by this class - throws an exception.*
- virtual void **setTransportListener** (**TransportListener** \*listener)  
*Sets the observer of asynchronous exceptions from this transport.*
- virtual **TransportListener** \* **getTransportListener** () const  
*Gets the observer of asynchronous exceptions from this transport.*
- virtual void **setWireFormat** (const **Pointer**< **wireformat::WireFormat** > &wireFormat)  
*Sets the WireFormat instance to use.*
- virtual void **start** () throw ( **decaf::io::IOException** )

*Starts this transport object and creates the thread for polling on the input stream for commands.*

- virtual void **stop** () throw ( decaf::io::IOException )

*Stops the **Transport** (p. 3273).*

- virtual void **close** () throw ( decaf::io::IOException )

*Stops the polling thread and closes the streams.*

- virtual **Transport** \* **narrow** (const std::type\_info &typeId)

*Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.*

- virtual bool **isFaultTolerant** () const

*Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.*

- virtual bool **isConnected** () const

*Is the **Transport** (p. 3273) Connected to its Broker.*

- virtual bool **isClosed** () const

*Has the **Transport** (p. 3273) been shutdown and no longer usable.*

- virtual std::string **getRemoteAddress** () const

- virtual void **reconnect** (const decaf::net::URI &uri) throw ( decaf::io::IOException )

*reconnect to another location*

## Protected Member Functions

- void **fire** (const decaf::lang::Exception &ex)

*Notify the listener of the thrown Exception.*

- void **fire** (const Pointer< Command > &command)

*Notify the listener of the new incoming Command.*

## Protected Attributes

- Pointer< Transport > **next**

*The transport that this filter wraps around.*

- TransportListener \* **listener**

*Listener of this transport.*

## 6.708.1 Detailed Description

A filter on the transport layer. **Transport** (p. 3273) filters implement the **Transport** (p. 3273) interface and optionally delegate calls to another **Transport** (p. 3273) object.

**Since:**

1.0

## 6.708.2 Constructor & Destructor Documentation

### 6.708.2.1 activemq::transport::TransportFilter::TransportFilter (const Pointer< Transport > & *next*)

Constructor.

**Parameters:**

*next* - the next **Transport** (p. 3273) in the chain

### 6.708.2.2 virtual activemq::transport::TransportFilter::~~TransportFilter () [inline, virtual]

## 6.708.3 Member Function Documentation

### 6.708.3.1 virtual void activemq::transport::TransportFilter::close () throw ( decaf::io::IOException ) [virtual]

Stops the polling thread and closes the streams. This can be called explicitly, but is also called in the destructor. Once this object has been closed, it cannot be restarted.

**Exceptions:**

*IOException* if an error occurs while closing the **Transport** (p. 3273).

Implements **decaf::io::Closeable** (p. 1019).

Reimplemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2788), **activemq::transport::inactivity::InactivityMonitor** (p. 1734), **activemq::transport::tcp::TcpTransport** (p. 3161), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2463).

### 6.708.3.2 void activemq::transport::TransportFilter::fire (const Pointer< Command > & *command*) [protected]

Notify the listener of the new incoming Command.

**Parameters:**

*command* - the command to send to the listener

**6.708.3.3** `void activemq::transport::TransportFilter::fire (const decaf::lang::Exception & ex)` [protected]

Notify the listener of the thrown Exception.

**Parameters:**

*ex* - the exception to send to listeners

**6.708.3.4** `virtual std::string activemq::transport::TransportFilter::getRemoteAddress () const` [inline, virtual]

**Returns:**

the remote address for this connection

Implements `activemq::transport::Transport` (p. 3274).

**6.708.3.5** `virtual TransportListener* activemq::transport::TransportFilter::getTransportListener () const` [inline, virtual]

Gets the observer of asynchronous exceptions from this transport.

**Returns:**

The listener of transport events.

Implements `activemq::transport::Transport` (p. 3274).

**6.708.3.6** `virtual bool activemq::transport::TransportFilter::isClosed () const` [inline, virtual]

Has the `Transport` (p. 3273) been shutdown and no longer usable.

**Returns:**

true if the `Transport` (p. 3273)

Implements `activemq::transport::Transport` (p. 3275).

Reimplemented in `activemq::transport::tcp::TcpTransport` (p. 3161).

**6.708.3.7** `virtual bool activemq::transport::TransportFilter::isConnected () const` [inline, virtual]

Is the `Transport` (p. 3273) Connected to its Broker.

**Returns:**

true if a connection has been made.

Implements `activemq::transport::Transport` (p. 3275).

Reimplemented in `activemq::transport::tcp::TcpTransport` (p. 3161).



### 6.708.3.8 virtual bool activemq::transport::TransportFilter::isFaultTolerant () const [inline, virtual]

Is this **Transport** (p. 3273) fault tolerant, meaning that it will reconnect to a broker on disconnect.

#### Returns:

true if the **Transport** (p. 3273) is fault tolerant.

Implements **activemq::transport::Transport** (p. 3275).

Reimplemented in **activemq::transport::tcp::TcpTransport** (p. 3162).

### 6.708.3.9 virtual Transport\* activemq::transport::TransportFilter::narrow (const std::type\_info & typeId) [virtual]

Narrows down a Chain of Transports to a specific **Transport** (p. 3273) to allow a higher level transport to skip intermediate Transports in certain circumstances.

#### Parameters:

*typeId* - The type\_info of the Object we are searching for.

#### Returns:

the requested Object. or NULL if its not in this chain.

Implements **activemq::transport::Transport** (p. 3275).

### 6.708.3.10 virtual void activemq::transport::TransportFilter::onCommand (const Pointer< Command > & command) [virtual]

Event handler for the receipt of a command.

#### Parameters:

*command* - the received command object.

Implements **activemq::transport::TransportListener** (p. 3289).

Reimplemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2788), **activemq::transport::inactivity::InactivityMonitor** (p. 1734), **activemq::transport::logging::LoggingTransport** (p. 2043), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2463).

### 6.708.3.11 virtual void activemq::transport::TransportFilter::oneway (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]

Sends a one-way command. Does not wait for any response from the broker.

#### Parameters:

*command* the command to be sent.

**Exceptions:**

***IOException*** if an exception occurs during writing of the command.

***UnsupportedOperationException*** if this method is not implemented by this transport.

Implements **activemq::transport::Transport** (p. 3276).

Reimplemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2788), **activemq::transport::inactivity::InactivityMonitor** (p. 1735), **activemq::transport::logging::LoggingTransport** (p. 2043), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2463).

**6.708.3.12** **virtual void activemq::transport::TransportFilter::onException (const decaf::lang::Exception & *ex*)** [virtual]

Event handler for an exception from a command transport.

**Parameters:**

***ex*** The exception to handle.

Implements **activemq::transport::TransportListener** (p. 3290).

Reimplemented in **activemq::transport::inactivity::InactivityMonitor** (p. 1735).

**6.708.3.13** **virtual void activemq::transport::TransportFilter::reconnect (const decaf::net::URI & *uri*) throw ( decaf::io::IOException )** [virtual]

reconnect to another location

**Parameters:**

***uri***

**Exceptions:**

***IOException*** on failure of if not supported

Implements **activemq::transport::Transport** (p. 3276).

**6.708.3.14** **virtual Pointer<Response> activemq::transport::TransportFilter::request (const Pointer< Command > & *command*, unsigned int *timeout*) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException )** [inline, virtual]

Not supported by this class - throws an exception.

**Parameters:**

***command*** - The command that is sent as a request

***timeout*** - The the time to wait for a response.

**Exceptions:**

***IOException***

*UnsupportedOperationException.*

Implements **activemq::transport::Transport** (p. 3276).

Reimplemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2789), **activemq::transport::logging::LoggingTransport** (p. 2043), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2464).

**6.708.3.15** `virtual Pointer<Response> activemq::transport::TransportFilter::request (const Pointer< Command > & command) throw ( decaf::io::IOException, decaf::lang::exceptions::UnsupportedOperationException ) [inline, virtual]`

Not supported by this class - throws an exception.

**Parameters:**

*command* the command that is sent as a request

**Exceptions:**

*IOException*

*UnsupportedOperationException.*

Implements **activemq::transport::Transport** (p. 3277).

Reimplemented in **activemq::transport::correlator::ResponseCorrelator** (p. 2789), **activemq::transport::logging::LoggingTransport** (p. 2044), and **activemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2464).

**6.708.3.16** `virtual void activemq::transport::TransportFilter::setTransportListener (TransportListener * listener) [inline, virtual]`

Sets the observer of asynchronous exceptions from this transport.

**Parameters:**

*listener* the listener of transport events.

Implements **activemq::transport::Transport** (p. 3277).

**6.708.3.17** `virtual void activemq::transport::TransportFilter::setWireFormat (const Pointer< wireformat::WireFormat > & wireFormat) [inline, virtual]`

Sets the WireFormat instance to use.

**Parameters:**

*wireFormat* The WireFormat the object used to encode / decode commands.

Implements **activemq::transport::Transport** (p. 3278).

**6.708.3.18** `virtual void activemq::transport::TransportFilter::start () throw (decaf::io::IOException) [virtual]`

Starts this transport object and creates the thread for polling on the input stream for commands. If this object has been closed, throws an exception. Before calling start, the caller must set the IO streams and the reader and writer objects.

**Exceptions:**

*IOException* if an error occurs or if this transport has already been closed.

Implements `activemq::transport::Transport` (p. 3278).

Reimplemented in `activemq::transport::correlator::ResponseCorrelator` (p. 2790), and `activemq::wireformat::openwire::OpenWireFormatNegotiator` (p. 2465).

**6.708.3.19** `virtual void activemq::transport::TransportFilter::stop () throw (decaf::io::IOException) [virtual]`

Stops the `Transport` (p. 3273).

**Exceptions:**

*IOException* if an error occurs while stopping the `Transport` (p. 3273).

Implements `activemq::transport::Transport` (p. 3278).

**6.708.3.20** `virtual void activemq::transport::TransportFilter::transportInterrupted () [virtual]`

The transport has suffered an interruption from which it hopes to recover.

Implements `activemq::transport::TransportListener` (p. 3290).

**6.708.3.21** `virtual void activemq::transport::TransportFilter::transportResumed () [virtual]`

The transport has resumed after an interruption.

Implements `activemq::transport::TransportListener` (p. 3290).

## 6.708.4 Field Documentation

**6.708.4.1** `TransportListener* activemq::transport::TransportFilter::listener [protected]`

Listener of this transport.

**6.708.4.2** `Pointer<Transport> activemq::transport::TransportFilter::next [protected]`

The transport that this filter wraps around.

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/TransportFilter.h`

## 6.709 activemq::transport::TransportListener Class Reference

A listener of asynchronous exceptions from a command transport object.

#include <src/main/activemq/transport/TransportListener.h> Inheritance diagram for activemq::transport::TransportListener:

### Public Member Functions

- virtual `~TransportListener ()`
- virtual void `onCommand (const Pointer< Command > &command)=0`  
*Event handler for the receipt of a command.*
- virtual void `onException (const decaf::lang::Exception &ex)=0`  
*Event handler for an exception from a command transport.*
- virtual void `transportInterrupted ()=0`  
*The transport has suffered an interruption from which it hopes to recover.*
- virtual void `transportResumed ()=0`  
*The transport has resumed after an interruption.*

### 6.709.1 Detailed Description

A listener of asynchronous exceptions from a command transport object.

### 6.709.2 Constructor & Destructor Documentation

- 6.709.2.1 `virtual activemq::transport::TransportListener::~~TransportListener ()`  
[inline, virtual]

### 6.709.3 Member Function Documentation

- 6.709.3.1 `virtual void activemq::transport::TransportListener::onCommand (const Pointer< Command > & command)` [pure virtual]

Event handler for the receipt of a command. The transport passes off all received commands to its listeners, the listener then owns the Object. If there is no registered listener the **Transport** (p. 3273) deletes the command upon receipt.

#### Parameters:

*command* the received command object.

Implemented in **activemq::core::ActiveMQConnection** (p. 240), **ac-**  
**tivemq::transport::correlator::ResponseCorrelator** (p. 2788), **ac-**  
**tivemq::transport::failover::FailoverTransportListener** (p. 1628), **ac-**  
**tivemq::transport::inactivity::InactivityMonitor** (p. 1734), **ac-**  
**tivemq::transport::logging::LoggingTransport** (p. 2043), **ac-**  
**tivemq::transport::mock::InternalCommandListener** (p. 1800),  
**activemq::transport::TransportFilter** (p. 3285), and **ac-**  
**tivemq::wireformat::openwire::OpenWireFormatNegotiator** (p. 2463).

### 6.709.3.2 virtual void activemq::transport::TransportListener::onException (const decaf::lang::Exception & *ex*) [pure virtual]

Event handler for an exception from a command transport.

#### Parameters:

*ex* The exception being propagated to this listener to handle.

Implemented in **activemq::core::ActiveMQConnection** (p. 240),  
**activemq::transport::failover::BackupTransport** (p. 645), **ac-**  
**tivemq::transport::failover::FailoverTransportListener** (p. 1628), **ac-**  
**tivemq::transport::inactivity::InactivityMonitor** (p. 1735), and **ac-**  
**tivemq::transport::TransportFilter** (p. 3286).

### 6.709.3.3 virtual void activemq::transport::TransportListener::transportInterrupted () [pure virtual]

The transport has suffered an interruption from which it hopes to recover.

Implemented in **activemq::core::ActiveMQConnection** (p. 242),  
**activemq::transport::DefaultTransportListener** (p. 1476), **ac-**  
**tivemq::transport::failover::FailoverTransportListener** (p. 1628), and **ac-**  
**tivemq::transport::TransportFilter** (p. 3288).

### 6.709.3.4 virtual void activemq::transport::TransportListener::transportResumed () [pure virtual]

The transport has resumed after an interruption.

Implemented in **activemq::core::ActiveMQConnection** (p. 242),  
**activemq::transport::DefaultTransportListener** (p. 1476), **ac-**  
**tivemq::transport::failover::FailoverTransportListener** (p. 1628), and **ac-**  
**tivemq::transport::TransportFilter** (p. 3288).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/**TransportListener.h**

## 6.710 activemq::transport::TransportRegistry Class Reference

Registry of all **Transport** (p. 3273) Factories that are available to the client at runtime.

```
#include <src/main/activemq/transport/TransportRegistry.h>
```

### Public Member Functions

- virtual **~TransportRegistry** ()
- **TransportFactory** \* **findFactory** (const std::string &name) const throw ( decaf::lang::exceptions::NoSuchElementException )

*Gets a Registered **TransportFactory** (p. 3279) from the Registry and returns it if there is not a registered format factory with the given name an exception is thrown.*

- void **registerFactory** (const std::string &name, **TransportFactory** \*factory) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )

*Registers a new **TransportFactory** (p. 3279) with this Registry.*

- void **unregisterFactory** (const std::string &name)

*Unregisters the Factory with the given name and deletes that instance of the Factory.*

- std::vector< std::string > **getTransportNames** () const

*Retrieves a list of the names of all the Registered Transport's in this Registry.*

### Static Public Member Functions

- static **TransportRegistry** & **getInstance** ()

*Gets the single instance of the **TransportRegistry** (p. 3291).*

#### 6.710.1 Detailed Description

Registry of all **Transport** (p. 3273) Factories that are available to the client at runtime. New Transport's must have a factory registered here before a connection attempt is made.

Since:

3.0



## 6.710.2 Constructor & Destructor Documentation

**6.710.2.1** `virtual activemq::transport::TransportRegistry::~TransportRegistry ()`  
[virtual]

## 6.710.3 Member Function Documentation

**6.710.3.1** `TransportFactory* activemq::transport::TransportRegistry::findFactory (const std::string & name) const throw ( decaf::lang::exceptions::NoSuchElementException )`

Gets a Registered **TransportFactory** (p. 3279) from the Registry and returns it if there is not a registered format factory with the given name an exception is thrown.

### Parameters:

*name* The name of the Factory to find in the Registry.

### Returns:

the Factory registered under the given name.

### Exceptions:

*NoSuchElementException* if no factory is registered with that name.

**6.710.3.2** `static TransportRegistry& activemq::transport::TransportRegistry::getInstance ()`  
[static]

Gets the single instance of the **TransportRegistry** (p. 3291).

### Returns:

reference to the single instance of this Registry

**6.710.3.3** `std::vector<std::string> activemq::transport::TransportRegistry::getTransportNames () const`

Retrieves a list of the names of all the Registered Transport's in this Registry.

### Returns:

std vector of strings with all the **Transport** (p. 3273) names registered.

**6.710.3.4** `void activemq::transport::TransportRegistry::registerFactory (const std::string & name, TransportFactory * factory) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )`

Registers a new **TransportFactory** (p. 3279) with this Registry. If a Factory with the given name is already registered it is overwritten with the new one. Once a factory is added to the Registry its lifetime is controlled by the Registry, it will be deleted once the Registry has been deleted.

**Parameters:**

- name* The name of the new Factory to register.  
*factory* The new Factory to add to the Registry.

**Exceptions:**

- IllegalArgumentException* if name is the empty string.  
*NullPointerException* if the Factory is Null.

**6.710.3.5 void activemq::transport::TransportRegistry::unregisterFactory (const std::string & name)**

Unregisters the Factory with the given name and deletes that instance of the Factory.

**Parameters:**

- name* Name of the Factory to unregister and destroy

The documentation for this class was generated from the following file:

- src/main/activemq/transport/**TransportRegistry.h**

## 6.711 decaf::net::UnknownHostException Class Reference

#include <src/main/decaf/net/UnknownHostException.h> Inheritance diagram for decaf::net::UnknownHostException:

### Public Member Functions

- **UnknownHostException** () throw ()  
*Default Constructor.*
- **UnknownHostException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **UnknownHostException** (const **UnknownHostException** &ex) throw ()  
*Copy Constructor.*
- **UnknownHostException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **UnknownHostException** (const std::exception \*cause) throw ()  
*Constructor.*
- **UnknownHostException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **UnknownHostException** \* clone () const  
*Clones this exception.*
- virtual ~**UnknownHostException** () throw ()

### 6.711.1 Constructor & Destructor Documentation

#### 6.711.1.1 decaf::net::UnknownHostException::UnknownHostException () throw () [inline]

Default Constructor.

#### 6.711.1.2 decaf::net::UnknownHostException::UnknownHostException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

### 6.711.1.3 `decaf::net::UnknownHostException::UnknownHostException (const UnknownHostException & ex) throw () [inline]`

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of Exception

References `decaf::lang::Exception::Exception()`.

### 6.711.1.4 `decaf::net::UnknownHostException::UnknownHostException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.711.1.5 `decaf::net::UnknownHostException::UnknownHostException (const std::exception * cause) throw () [inline]`

Constructor.

#### Parameters:

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.711.1.6 `decaf::net::UnknownHostException::UnknownHostException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.711.1.7** virtual decaf::net::UnknownHostException::~~UnknownHostException ()  
throw () [inline, virtual]

## 6.711.2 Member Function Documentation

**6.711.2.1** virtual UnknownHostException\* decaf::net::UnknownHostException::clone () const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### Returns:

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- src/main/decaf/net/**UnknownHostException.h**

## 6.712 decaf::net::UnknownServiceException Class Reference

#include <src/main/decaf/net/UnknownServiceException.h> Inheritance diagram for decaf::net::UnknownServiceException:

### Public Member Functions

- **UnknownServiceException** () throw ()  
*Default Constructor.*
- **UnknownServiceException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **UnknownServiceException** (const **UnknownServiceException** &ex) throw ()  
*Copy Constructor.*
- **UnknownServiceException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **UnknownServiceException** (const std::exception \*cause) throw ()  
*Constructor.*
- **UnknownServiceException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **UnknownServiceException** \* clone () const  
*Clones this exception.*
- virtual ~**UnknownServiceException** () throw ()

### 6.712.1 Constructor & Destructor Documentation

#### 6.712.1.1 decaf::net::UnknownServiceException::UnknownServiceException () throw () [inline]

Default Constructor.

#### 6.712.1.2 decaf::net::UnknownServiceException::UnknownServiceException (const Exception & ex) throw () [inline]

Conversion Constructor from some other Exception.

#### Parameters:

**ex** An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

**6.712.1.3 decaf::net::UnknownServiceException::UnknownServiceException (const UnknownServiceException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

References decaf::lang::Exception::Exception().

**6.712.1.4 decaf::net::UnknownServiceException::UnknownServiceException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.712.1.5 decaf::net::UnknownServiceException::UnknownServiceException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.712.1.6 decaf::net::UnknownServiceException::UnknownServiceException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.712.1.7**   **virtual**  
**decaf::net::UnknownServiceException::~UnknownServiceException ()**  
**throw ()**   [inline, virtual]

## **6.712.2   Member Function Documentation**

**6.712.2.1**   **virtual UnknownServiceException\* de-**  
**caf::net::UnknownServiceException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- `src/main/decaf/net/UnknownServiceException.h`



## 6.713 decaf::io::UnsupportedEncodingException Class Reference

Thrown when the the Character Encoding is not supported.

#include <src/main/decaf/io/UnsupportedEncodingException.h> Inheritance diagram for decaf::io::UnsupportedEncodingException:

### Public Member Functions

- **UnsupportedEncodingException** () throw ()  
*Default Constructor.*
- **UnsupportedEncodingException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **UnsupportedEncodingException** (const **UnsupportedEncodingException** &ex) throw ()  
*Copy Constructor.*
- **UnsupportedEncodingException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **UnsupportedEncodingException** (const std::exception \*cause) throw ()  
*Constructor.*
- **UnsupportedEncodingException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **UnsupportedEncodingException** \* clone () const  
*Clones this exception.*
- virtual ~**UnsupportedEncodingException** () throw ()

### 6.713.1 Detailed Description

Thrown when the the Character Encoding is not supported.

Since:

1.0

### 6.713.2 Constructor & Destructor Documentation

#### 6.713.2.1 decaf::io::UnsupportedEncodingException::UnsupportedEncodingException () throw () [inline]

Default Constructor.

**6.713.2.2** `decaf::io::UnsupportedEncodingException::UnsupportedEncodingException (const lang::Exception & ex) throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* the exception to copy

**6.713.2.3** `decaf::io::UnsupportedEncodingException::UnsupportedEncodingException (const UnsupportedEncodingException & ex) throw () [inline]`

Copy Constructor.

**Parameters:**

*ex* the exception to copy, which is an instance of this type

**6.713.2.4** `decaf::io::UnsupportedEncodingException::UnsupportedEncodingException (const char * file, const int lineNumber, const std::exception * cause, const char * msg, ...) throw () [inline]`

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.713.2.5** `decaf::io::UnsupportedEncodingException::UnsupportedEncodingException (const std::exception * cause) throw () [inline]`

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.713.2.6** `decaf::io::UnsupportedEncodingException::UnsupportedEncodingException (const char * file, const int lineNumber, const char * msg, ...) throw () [inline]`

Constructor.

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

#### 6.713.2.7 virtual

```
decaf::io::UnsupportedEncodingException::~~UnsupportedEncodingException  
( ) throw ( ) [inline, virtual]
```

### 6.713.3 Member Function Documentation

#### 6.713.3.1 virtual UnsupportedEncodingException\* decaf::io::UnsupportedEncodingException::clone ( ) const [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

#### Returns:

A new instance of an Exception object that is a copy of this instance.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- src/main/decaf/io/**UnsupportedEncodingException.h**

## 6.714 cms::UnsupportedOperationException Class Reference

This exception must be thrown when a CMS client attempts use a CMS method that is not implemented or not supported by the CMS Provider in use.

#include <src/main/cms/UnsupportedOperationException.h> Inheritance diagram for cms::UnsupportedOperationException:

### Public Member Functions

- **UnsupportedOperationException** () throw ()
- **UnsupportedOperationException** (const **UnsupportedOperationException** &ex) throw ()
- **UnsupportedOperationException** (const std::string &message, const std::exception \*cause) throw ()
- **UnsupportedOperationException** (const std::string &message, const std::exception \*cause, const std::vector< std::pair< std::string, int > > &stackTrace) throw ()
- virtual ~**UnsupportedOperationException** () throw ()

### 6.714.1 Detailed Description

This exception must be thrown when a CMS client attempts use a CMS method that is not implemented or not supported by the CMS Provider in use.

Since:

2.0

### 6.714.2 Constructor & Destructor Documentation

- 6.714.2.1 **cms::UnsupportedOperationException::UnsupportedOperationException** () throw ()
- 6.714.2.2 **cms::UnsupportedOperationException::UnsupportedOperationException** (const **UnsupportedOperationException** & *ex*) throw ()
- 6.714.2.3 **cms::UnsupportedOperationException::UnsupportedOperationException** (const std::string & *message*, const std::exception \* *cause*) throw ()
- 6.714.2.4 **cms::UnsupportedOperationException::UnsupportedOperationException** (const std::string & *message*, const std::exception \* *cause*, const std::vector< std::pair< std::string, int > > & *stackTrace*) throw ()
- 6.714.2.5 virtual **cms::UnsupportedOperationException::~~UnsupportedOperationException** () throw () [virtual]

The documentation for this class was generated from the following file:

- `src/main/cms/UnsupportedOperationException.h`

## 6.715 decaf::lang::exceptions::UnsupportedOperationException Class Reference

#include <src/main/decaf/lang/exceptions/UnsupportedOperationException.h> Inheritance diagram for decaf::lang::exceptions::UnsupportedOperationException:

### Public Member Functions

- **UnsupportedOperationException** () throw ()  
*Default Constructor.*
- **UnsupportedOperationException** (const **Exception** &ex) throw ()  
*Conversion Constructor from some other **Exception** (p. 1574).*
- **UnsupportedOperationException** (const **UnsupportedOperationException** &ex) throw ()  
*Copy Constructor.*
- **UnsupportedOperationException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **UnsupportedOperationException** (const std::exception \*cause) throw ()  
*Constructor.*
- **UnsupportedOperationException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **UnsupportedOperationException** \* clone () const  
*Clones this exception.*
- virtual ~**UnsupportedOperationException** () throw ()

### 6.715.1 Constructor & Destructor Documentation

#### 6.715.1.1 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException () throw () [inline]

Default Constructor.

#### 6.715.1.2 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException (const **Exception** & ex) throw () [inline]

Conversion Constructor from some other **Exception** (p. 1574).

#### Parameters:

*ex* An exception that should become this type of **Exception** (p. 1574)

### 6.715.1.3 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException (const UnsupportedOperationException & *ex*) throw () [inline]

Copy Constructor.

#### Parameters:

*ex* An exception that should become this type of **Exception** (p. 1574)

### 6.715.1.4 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

### 6.715.1.5 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException (const std::exception \* *cause*) throw () [inline]

Constructor.

#### Parameters:

*cause* **Pointer** (p. 2497) to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

### 6.715.1.6 decaf::lang::exceptions::UnsupportedOperationException::UnsupportedOperationException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

#### Parameters:

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.715.1.7**    **virtual**  
**decaf::lang::exceptions::UnsupportedOperationException::~~UnsupportedOperationException**  
**() throw ()**    [inline, virtual]

## **6.715.2    Member Function Documentation**

**6.715.2.1**    **virtual UnsupportedOperationException\* de-**  
**caf::lang::exceptions::UnsupportedOperationException::clone () const**  
[inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

### **Returns:**

an new **Exception** (p. 1574) instance that is a copy of this one.

Reimplemented from **decaf::lang::Exception** (p. 1577).

Reimplemented in **decaf::nio::ReadOnlyBufferException** (p. 2687).

The documentation for this class was generated from the following file:

- `src/main/decaf/lang/exceptions/UnsupportedOperationException.h`



## 6.716 decaf::net::URI Class Reference

This class represents an instance of a **URI** (p. 3308) as defined by RFC 2396.

#include <src/main/decaf/net/URI.h> Inheritance diagram for decaf::net::URI:

### Public Member Functions

- **URI** ()  
*Default Constructor, same as calling a Constructor with all fields empty.*
- **URI** (const **URI** &uri) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) as a copy of another **URI** (p. 3308).*
- **URI** (const std::string &uri) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) from the given string.*
- **URI** (const std::string &scheme, const std::string &ssp, const std::string &fragment) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) from the given components.*
- **URI** (const std::string &scheme, const std::string &userInfo, const std::string &host, int port, const std::string &path, const std::string &query, const std::string &fragment) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) from the given components.*
- **URI** (const std::string &scheme, const std::string &host, const std::string &path, const std::string &fragment) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) from the given components.*
- **URI** (const std::string &scheme, const std::string &authority, const std::string &path, const std::string &query, const std::string &fragment) throw ( URISyntaxException )  
*Constructs a **URI** (p. 3308) from the given components.*
- virtual ~**URI** ()
- virtual int **compareTo** (const **URI** &value) const  
*Compares this object with the specified object for order.*
- virtual bool **equals** (const **URI** &value) const
- virtual bool **operator==** (const **URI** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **URI** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- std::string **getAuthority** () const
- std::string **getFragment** () const
- std::string **getHost** () const

- `std::string getPath () const`
- `int getPort () const`
- `std::string getQuery () const`
- `std::string getScheme () const`
- `std::string getUserInfo () const`
- `std::string getRawAuthority () const`  
*Returns the raw authority component of this **URI** (p. 3308).*
- `std::string getRawFragment () const`  
*Returns the raw fragment component of this **URI** (p. 3308).*
- `std::string getRawPath () const`  
*Returns the raw path component of this **URI** (p. 3308).*
- `std::string getRawQuery () const`  
*Returns the raw query component of this **URI** (p. 3308).*
- `std::string getRawSchemeSpecificPart () const`  
*Returns the raw scheme-specific part of this **URI** (p. 3308).*
- `std::string getSchemeSpecificPart () const`  
*Returns the decoded scheme-specific part of this **URI** (p. 3308).*
- `std::string getRawUserInfo () const`  
*Returns the raw user-information component of this **URI** (p. 3308).*
- `bool isAbsolute () const`  
*Tells whether or not this **URI** (p. 3308) is absolute.*
- `bool isOpaque () const`  
*Tells whether or not this **URI** (p. 3308) is opaque.*
- `URI normalize () const`  
*Normalizes this **URI**'s path.*
- `URI parseServerAuthority () const throw ( URISyntaxException )`  
*Attempts to parse this **URI**'s authority component, if defined, into user-information, host, and port components.*
- `URI relativize (const URI &uri) const`  
*Relativizes the given **URI** (p. 3308) against this **URI** (p. 3308).*
- `URI resolve (const std::string &str) const throw ( lang::exceptions::IllegalArgumentException )`  
*Constructs a new **URI** (p. 3308) by parsing the given string and then resolving it against this **URI** (p. 3308).*
- `URI resolve (const URI &uri) const`  
*Resolves the given **URI** (p. 3308) against this **URI** (p. 3308).*

- `std::string toString () const`  
*Returns the content of this **URI** (p. 3308) as a string.*
- `URL toURL () const throw ( MalformedURLException, lang::exceptions::IllegalArgumentException )`  
*Constructs a **URL** (p. 3347) from this **URI** (p. 3308).*

## Static Public Member Functions

- `static URI create (const std::string uri) throw ( lang::exceptions::IllegalArgumentException )`  
*Creates a **URI** (p. 3308) by parsing the given string.*

### 6.716.1 Detailed Description

This class represents an instance of a **URI** (p. 3308) as defined by RFC 2396.

### 6.716.2 Constructor & Destructor Documentation

#### 6.716.2.1 decaf::net::URI::URI ()

Default Constructor, same as calling a Constructor with all fields empty.

#### 6.716.2.2 decaf::net::URI::URI (const URI & uri) throw ( URISyntaxException )

Constructs a **URI** (p. 3308) as a copy of another **URI** (p. 3308).

##### Parameters:

*uri* - uri to copy

#### 6.716.2.3 decaf::net::URI::URI (const std::string & uri) throw ( URISyntaxException )

Constructs a **URI** (p. 3308) from the given string.

##### Parameters:

*uri* - string uri to parse.

#### 6.716.2.4 decaf::net::URI::URI (const std::string & scheme, const std::string & ssp, const std::string & fragment) throw ( URISyntaxException )

Constructs a **URI** (p. 3308) from the given components.

##### Parameters:

*scheme* - the uri scheme

*ssp* - Scheme specific part

*fragment* - Fragment

**6.716.2.5** `decaf::net::URI::URI (const std::string & scheme, const std::string & userInfo, const std::string & host, int port, const std::string & path, const std::string & query, const std::string & fragment) throw ( URISyntaxException )`

Constructs a **URI** (p. 3308) from the given components.

**Parameters:**

*scheme* - Scheme name

*userInfo* - User name and authorization information

*host* - Host name

*port* - Port number

*path* - Path

*query* - Query

*fragment* - Fragment

**6.716.2.6** `decaf::net::URI::URI (const std::string & scheme, const std::string & host, const std::string & path, const std::string & fragment) throw ( URISyntaxException )`

Constructs a **URI** (p. 3308) from the given components.

**Parameters:**

*scheme* - Scheme name

*host* - Host name

*path* - Path

*fragment* - Fragment

**6.716.2.7** `decaf::net::URI::URI (const std::string & scheme, const std::string & authority, const std::string & path, const std::string & query, const std::string & fragment) throw ( URISyntaxException )`

Constructs a **URI** (p. 3308) from the given components.

**Parameters:**

*scheme* - Scheme name

*authority* - Authority

*path* - Path

*query* - Query

*fragment* - Fragment

**6.716.2.8** virtual decaf::net::URI::~~URI () [inline, virtual]

### 6.716.3 Member Function Documentation

**6.716.3.1** virtual int decaf::net::URI::compareTo (const URI & *value*) const [virtual]

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

**Parameters:**

*value* - the value to compare to this one.

**Returns:**

zero if equal minus one if less than and one if greater than.

**6.716.3.2** static URI decaf::net::URI::create (const std::string *uri*) throw (lang::exceptions::IllegalArgumentException ) [static]

Creates a **URI** (p. 3308) by parsing the given string. This convenience factory method works as if by invoking the URI(string) constructor; any **URISyntaxException** (p. 3335) thrown by the constructor is caught and wrapped in a new IllegalArgumentException object, which is then thrown.

**Parameters:**

*uri* - **URI** (p. 3308) string to parse

**Exceptions:**

*IllegalArgumentException*

**6.716.3.3** virtual bool decaf::net::URI::equals (const URI & *value*) const [virtual]

**Returns:**

true if this value is considered equal to the passed value.

**6.716.3.4** std::string decaf::net::URI::getAuthority () const

**Returns:**

the decoded authority component of this **URI** (p. 3308).

**6.716.3.5** std::string decaf::net::URI::getFragment () const

**Returns:**

the decoded fragment component of this **URI** (p. 3308).

**6.716.3.6** `std::string decaf::net::URI::getHost () const`**Returns:**

the host component of this **URI** (p. 3308).

**6.716.3.7** `std::string decaf::net::URI::getPath () const`**Returns:**

the path component of this **URI** (p. 3308).

**6.716.3.8** `int decaf::net::URI::getPort () const`**Returns:**

the port component of this **URI** (p. 3308).

**6.716.3.9** `std::string decaf::net::URI::getQuery () const`**Returns:**

the query component of this **URI** (p. 3308).

**6.716.3.10** `std::string decaf::net::URI::getRawAuthority () const`

Returns the raw authority component of this **URI** (p. 3308). The authority component of a **URI** (p. 3308), if defined, only contains the commercial-at character ('@') and characters in the unreserved, punct, escaped, and other categories. If the authority is server-based then it is further constrained to have valid user-information, host, and port components.

**Returns:**

the raw authority component of the **URI** (p. 3308)

**6.716.3.11** `std::string decaf::net::URI::getRawFragment () const`

Returns the raw fragment component of this **URI** (p. 3308). The fragment component of a **URI** (p. 3308), if defined, only contains legal **URI** (p. 3308) characters.

**Returns:**

the raw fragment component of this **URI** (p. 3308)

**6.716.3.12** `std::string decaf::net::URI::getRawPath () const`

Returns the raw path component of this **URI** (p. 3308). The path component of a **URI** (p. 3308), if defined, only contains the slash character ('/'), the commercial-at character ('@'), and characters in the unreserved, punct, escaped, and other categories.

**Returns:**

the raw path component of this **URI** (p. 3308)

**6.716.3.13 std::string decaf::net::URI::getRawQuery () const**

Returns the raw query component of this **URI** (p. 3308). The query component of a **URI** (p. 3308), if defined, only contains legal **URI** (p. 3308) characters.

**Returns:**

the raw query component of the **URI** (p. 3308).

**6.716.3.14 std::string decaf::net::URI::getRawSchemeSpecificPart () const**

Returns the raw scheme-specific part of this **URI** (p. 3308). The scheme-specific part is never undefined, though it may be empty. The scheme-specific part of a **URI** (p. 3308) only contains legal **URI** (p. 3308) characters.

**Returns:**

the raw scheme special part of the uri

**6.716.3.15 std::string decaf::net::URI::getRawUserInfo () const**

Returns the raw user-information component of this **URI** (p. 3308). The user-information component of a **URI** (p. 3308), if defined, only contains characters in the unreserved, punct, escaped, and other categories.

**Returns:**

the raw user-information component of the **URI** (p. 3308)

**6.716.3.16 std::string decaf::net::URI::getScheme () const****Returns:**

the scheme component of this **URI** (p. 3308)

**6.716.3.17 std::string decaf::net::URI::getSchemeSpecificPart () const**

Returns the decoded scheme-specific part of this **URI** (p. 3308). The string returned by this method is equal to that returned by the getRawSchemeSpecificPart method except that all sequences of escaped octets are decoded.

**Returns:**

the raw scheme specific part of the uri.

**6.716.3.18** `std::string decaf::net::URI::getUserInfo () const`**Returns:**

the user info component of this **URI** (p. 3308)

**6.716.3.19** `bool decaf::net::URI::isAbsolute () const`

Tells whether or not this **URI** (p. 3308) is absolute. A **URI** (p. 3308) is absolute if, and only if, it has a scheme component.

**Returns:**

true if, and only if, this **URI** (p. 3308) is absolute

**6.716.3.20** `bool decaf::net::URI::isOpaque () const`

Tells whether or not this **URI** (p. 3308) is opaque. A **URI** (p. 3308) is opaque if, and only if, it is absolute and its scheme-specific part does not begin with a slash character ('/'). An opaque **URI** (p. 3308) has a scheme, a scheme-specific part, and possibly a fragment; all other components are undefined.

**Returns:**

true if, and only if, this **URI** (p. 3308) is opaque

**6.716.3.21** `URI decaf::net::URI::normalize () const`

Normalizes this **URI**'s path. If this **URI** (p. 3308) is opaque, or if its path is already in normal form, then this **URI** (p. 3308) is returned. Otherwise a new **URI** (p. 3308) is constructed that is identical to this **URI** (p. 3308) except that its path is computed by normalizing this **URI**'s path in a manner consistent with RFC 2396, section 5.2, step 6, sub-steps c through f; that is:

1. All "." segments are removed.
2. If a ".." segment is preceded by a non-".." segment then both of these segments are removed. This step is repeated until it is no longer applicable.
3. If the path is relative, and if its first segment contains a colon character (':'), then a "." segment is prepended. This prevents a relative **URI** (p. 3308) with a path such as "a:b/c/d" from later being re-parsed as an opaque **URI** (p. 3308) with a scheme of "a" and a scheme-specific part of "b/c/d". (Deviation from RFC 2396)

A normalized path will begin with one or more "." segments if there were insufficient non-".." segments preceding them to allow their removal. A normalized path will begin with a "." segment if one was inserted by step 3 above. Otherwise, a normalized path will not contain any "." or ".." segments.

**Returns:**

A **URI** (p. 3308) equivalent to this **URI** (p. 3308), but whose path is in normal form

**6.716.3.22** `virtual bool decaf::net::URI::operator< (const URI & value) const`  
[virtual]

Compares this object to another and returns true if this object is considered to be less than the one passed. This



**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.716.3.23** `virtual bool decaf::net::URI::operator==(const URI & value) const`  
[virtual]

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.716.3.24** `URI decaf::net::URI::parseServerAuthority () const throw (`  
`URISyntaxException )`

Attempts to parse this URI's authority component, if defined, into user-information, host, and port components. If this URI's authority component has already been recognized as being server-based then it will already have been parsed into user-information, host, and port components. In this case, or if this **URI** (p. 3308) has no authority component, this method simply returns this **URI** (p. 3308).

Otherwise this method attempts once more to parse the authority component into user-information, host, and port components, and throws an exception describing why the authority component could not be parsed in that way.

**Returns:**

A **URI** (p. 3308) whose authority field has been parsed as a server-based authority

**Exceptions:**

*URISyntaxException* (p. 3335) - If the authority component of this **URI** (p. 3308) is defined but cannot be parsed as a server-based authority.

**6.716.3.25** `URI decaf::net::URI::relativize (const URI & uri) const`

Relativizes the given **URI** (p. 3308) against this **URI** (p. 3308). The relativization of the given **URI** (p. 3308) against this **URI** (p. 3308) is computed as follows:

1. If either this **URI** (p. 3308) or the given **URI** (p. 3308) are opaque, or if the scheme and authority components of the two URIs are not identical, or if the path of this **URI** (p. 3308) is not a prefix of the path of the given **URI** (p. 3308), then the given **URI** (p. 3308) is returned.
2. Otherwise a new relative hierarchical **URI** (p. 3308) is constructed with query and fragment components taken from the given **URI** (p. 3308) and with a path component computed by removing this URI's path from the beginning of the given URI's path.

**Parameters:**

*uri* - The **URI** (p. 3308) to be relativized against this **URI** (p. 3308)

**Returns:**

The resulting **URI** (p. 3308)

**6.716.3.26 URI decaf::net::URI::resolve (const URI & uri) const**

Resolves the given **URI** (p. 3308) against this **URI** (p. 3308). If the given **URI** (p. 3308) is already absolute, or if this **URI** (p. 3308) is opaque, then a copy of the given **URI** (p. 3308) is returned.

If the given **URI**'s fragment component is defined, its path component is empty, and its scheme, authority, and query components are undefined, then a **URI** (p. 3308) with the given fragment but with all other components equal to those of this **URI** (p. 3308) is returned. This allows a **URI** (p. 3308) representing a standalone fragment reference, such as "#foo", to be usefully resolved against a base **URI** (p. 3308).

Otherwise this method constructs a new hierarchical **URI** (p. 3308) in a manner consistent with RFC 2396, section 5.2; that is:

1. A new **URI** (p. 3308) is constructed with this **URI**'s scheme and the given **URI**'s query and fragment components.
2. If the given **URI** (p. 3308) has an authority component then the new **URI**'s authority and path are taken from the given **URI** (p. 3308).
3. Otherwise the new **URI**'s authority component is copied from this **URI** (p. 3308), and its path is computed as follows:

1. If the given **URI**'s path is absolute then the new **URI**'s path is taken from the given **URI** (p. 3308).
2. Otherwise the given **URI**'s path is relative, and so the new **URI**'s path is computed by resolving the path of the given **URI** (p. 3308) against the path of this **URI** (p. 3308). This is done by concatenating all but the last segment of this **URI**'s path, if any, with the given **URI**'s path and then normalizing the result as if by invoking the `normalize` method.

The result of this method is absolute if, and only if, either this **URI** (p. 3308) is absolute or the given **URI** (p. 3308) is absolute.

**Parameters:**

*uri* - The **URI** (p. 3308) to be resolved against this **URI** (p. 3308)

**Returns:**

The resulting **URI** (p. 3308)

**6.716.3.27 URI decaf::net::URI::resolve (const std::string & str) const throw ( lang::exceptions::IllegalArgumentException )**

Constructs a new **URI** (p. 3308) by parsing the given string and then resolving it against this **URI** (p. 3308). This convenience method works as if invoking it were equivalent to evaluating the expression `resolve( URI::create( str ) )`.

**Parameters:**

*str* - The string to be parsed into a **URI** (p. 3308)

**Returns:**

The resulting **URI** (p. 3308)

**Exceptions:**

***IllegalArgumentException*** - If the given string violates RFC 2396

**6.716.3.28 std::string decaf::net::URI::toString () const**

Returns the content of this **URI** (p. 3308) as a string. If this **URI** (p. 3308) was created by invoking one of the constructors in this class then a string equivalent to the original input string, or to the string computed from the originally-given components, as appropriate, is returned. Otherwise this **URI** (p. 3308) was created by normalization, resolution, or relativization, and so a string is constructed from this **URI**'s components according to the rules specified in RFC 2396, section 5.2, step 7.

**Returns:**

the string form of this **URI** (p. 3308)

**6.716.3.29 URL decaf::net::URI::toURL () const throw ( MalformedURLException, lang::exceptions::IllegalArgumentException )**

Constructs a **URL** (p. 3347) from this **URI** (p. 3308). This convenience method works as if invoking it were equivalent to evaluating the expression `new URL (p. 3347)(this.toString())` after first checking that this **URI** (p. 3308) is absolute.

**Returns:**

A **URL** (p. 3347) constructed from this **URI** (p. 3308)

**Exceptions:**

***IllegalArgumentException*** - If this **URL** (p. 3347) is not absolute

***MalformedURLException*** (p. 2091) - If a protocol handler for the **URL** (p. 3347) could not be found, or if some other error occurred while constructing the **URL** (p. 3347)

The documentation for this class was generated from the following file:

- src/main/decaf/net/**URI.h**

## 6.717 decaf::internal::net::URIEncoderDecoder Class Reference

```
#include <src/main/decaf/internal/net/URIEncoderDecoder.h>
```

### Public Member Functions

- **URIEncoderDecoder** ()
- virtual **~URIEncoderDecoder** ()

### Static Public Member Functions

- static void **validate** (const std::string &s, const std::string &legal) throw ( decaf::net::URISyntaxException )  
*Validate a string by checking if it contains any characters other than:.*
- static void **validateSimple** (const std::string &s, const std::string &legal) throw ( decaf::net::URISyntaxException )  
*Validate a string by checking if it contains any characters other than:.*
- static std::string **quoteIllegal** (const std::string &s, const std::string &legal)  
*All characters except letters ('a').*
- static std::string **encodeOthers** (const std::string &s)  
*Other characters, which are chars that are not US-ASCII, and are not ISO Control or are not ISO Space chars are not preserved.*
- static std::string **decode** (const std::string &s)  
*Decodes the string argument which is assumed to be encoded in the x-www-form-urlencoded MIME content type using the UTF-8 encoding scheme.*

### 6.717.1 Constructor & Destructor Documentation

**6.717.1.1** decaf::internal::net::URIEncoderDecoder::URIEncoderDecoder ()

**6.717.1.2** virtual decaf::internal::net::URIEncoderDecoder::~~URIEncoderDecoder () [inline, virtual]

### 6.717.2 Member Function Documentation

**6.717.2.1** static std::string decaf::internal::net::URIEncoderDecoder::decode (const std::string & s) [static]

Decodes the string argument which is assumed to be encoded in the x-www-form-urlencoded MIME content type using the UTF-8 encoding scheme. " and two following hex digit characters are converted to the equivalent byte value. All other characters are passed through unmodified.

e.g. "A%20B%20C %24%25" -> "A B C \$%"

**Parameters:**

*s* - The encoded string.

**Returns:**

The decoded version.

**6.717.2.2 static std::string decaf::internal::net::URIEncoderDecoder::encodeOthers (const std::string & *s*) [static]**

Other characters, which are chars that are not US-ASCII, and are not ISO Control or are not ISO Space chars are not preserved. They are converted into their hexadecimal value prepended by ”.

For example: Euro currency symbol -> "%E2%82%AC".

**Parameters:**

*s* - the string to be converted

**Returns:**

the converted string

**6.717.2.3 static std::string decaf::internal::net::URIEncoderDecoder::quoteIllegal (const std::string & *s*, const std::string & *legal*) [static]**

All characters except letters ('a'..'z', 'A'..'Z') and numbers ('0'..'9') and legal characters are converted into their hexadecimal value prepended by ”.

For example: '#' -> 23

Other characters, which are chars that are not US-ASCII, and are not ISO Control or are not ISO Space chars, are preserved.

**Parameters:**

*s* - the string to be converted

*legal* - the characters allowed to be preserved in the string *s*

**Returns:**

converted string

**6.717.2.4 static void decaf::internal::net::URIEncoderDecoder::validate (const std::string & *s*, const std::string & *legal*) throw ( decaf::net::URISyntaxException ) [static]**

Validate a string by checking if it contains any characters other than: 1. letters ('a'..'z', 'A'..'Z') 2. numbers ('0'..'9') 3. characters in the legalset parameter 4. characters that are not ISO Control or are not ISO Space characters)

**Parameters:**

*s* - the string to be validated

*legal* - the characters allowed in the string *s*

**6.717.2.5** `static void decaf::internal::net::URIEncoderDecoder::validateSimple  
(const std::string & s, const std::string & legal) throw (  
decaf::net::URISyntaxException ) [static]`

Validate a string by checking if it contains any characters other than: 1. letters ('a'..'z', 'A'..'Z')  
2. numbers ('0'..'9') 3. characters in the *legalset* parameter

**Parameters:**

- s* - the string to be validated
- legal* - the characters allowed in the string *s*

The documentation for this class was generated from the following file:

- `src/main/decaf/internal/net/URIEncoderDecoder.h`

## 6.718 decaf::internal::net::URIHelper Class Reference

Helper class used by the URI classes in encoding and decoding of URI's.

```
#include <src/main/decaf/internal/net/URIHelper.h>
```

### Public Member Functions

- **URIHelper** (const std::string &unreserved, const std::string &punct, const std::string &reserved, const std::string &someLegal, const std::string &allLegal)

*Setup the **URIHelper** (p. 3322) with values assigned to the various fields that are used in the validation process.*

- **URIHelper** ()

*Sets up the filter strings with sane defaults.*

- virtual ~**URIHelper** ()

- **URIType parseURI** (const std::string &uri, bool forceServer) throw ( decaf::net::URISyntaxException )

*Parse the passed in URI.*

- void **validateScheme** (const std::string &uri, const std::string &scheme, int index) throw ( decaf::net::URISyntaxException )

*Validate the schema portin of the URI.*

- void **validateSsp** (const std::string &uri, const std::string &ssp, std::size\_t index) throw ( decaf::net::URISyntaxException )

*Validate that the URI Ssp Segment contains no invalid encodings.*

- void **validateAuthority** (const std::string &uri, const std::string &authority, std::size\_t index) throw ( decaf::net::URISyntaxException )

*Validate that the URI Authority Segment contains no invalid encodings.*

- void **validatePath** (const std::string &uri, const std::string &path, std::size\_t index) throw ( decaf::net::URISyntaxException )

*Validate that the URI Path Segment contains no invalid encodings.*

- void **validateQuery** (const std::string &uri, const std::string &query, std::size\_t index) throw ( decaf::net::URISyntaxException )

*Validate that the URI Query Segment contains no invalid encodings.*

- void **validateFragment** (const std::string &uri, const std::string &fragment, std::size\_t index) throw ( decaf::net::URISyntaxException )

*Validate that the URI fragment contains no invalid encodings.*

- **URIType parseAuthority** (bool forceServer, const std::string &authority) throw ( decaf::net::URISyntaxException )

*determine the host, port and user-info if the authority parses successfully to a server based authority*

- void **validateUserinfo** (const std::string &uri, const std::string &userinfo, std::size\_t index) throw ( decaf::net::URISyntaxException )  
*Check the supplied user info for validity.*
- bool **isValidHost** (bool forceServer, const std::string &host) throw ( decaf::net::URISyntaxException )  
*distinguish between IPv4, IPv6, domain name and validate it based on its type*
- bool **isValidDomainName** (const std::string &host)  
*Validates the string past to determine if it is a well formed domain name.*
- bool **isValidIPv4Address** (const std::string &host)  
*Validate if the host value is a well formed IPv4 address, this is the form XXX.XXX.XXX.XXX were X is any number 0-9.*
- bool **isValidIPv6Address** (const std::string &ipAddress)  
*Determines if the given address is valid according to the IPv6 spec.*
- bool **isValidIPv4Word** (const std::string &word)  
*Check is the string passed contains a Valid IPv4 word, which is an integer in the range of 0 to 255.*
- bool **isValidHexChar** (char c)  
*Determines if the given char is a valid Hex char.*

### 6.718.1 Detailed Description

Helper class used by the URI classes in encoding and decoding of URI's.

### 6.718.2 Constructor & Destructor Documentation

- #### 6.718.2.1 decaf::internal::net::URIHelper::URIHelper (const std::string & *unreserved*, const std::string & *punct*, const std::string & *reserved*, const std::string & *someLegal*, const std::string & *allLegal*)

Setup the **URIHelper** (p. 3322) with values assigned to the various fields that are used in the validation process. The defaults are overridden by these values.

#### Parameters:

- unreserved* - characters not reserved for use.
- punct* - allowable punctuation symbols.
- reserved* - characters not allowed for general use in the URI.
- someLegal* - characters that are legal in certain cases.
- allLegal* - characters that are always legal.

- #### 6.718.2.2 decaf::internal::net::URIHelper::URIHelper ()

Sets up the filter strings with sane defaults.



**6.718.2.3**    `virtual decaf::internal::net::URIHelper::~~URIHelper () [inline, virtual]`

## 6.718.3 Member Function Documentation

**6.718.3.1**    `bool decaf::internal::net::URIHelper::isValidDomainName (const std::string & host)`

Validates the string past to determine if it is a well formed domain name.

### Parameters:

*host* - domain name to validate.

### Returns:

true if host is well formed.

**6.718.3.2**    `bool decaf::internal::net::URIHelper::isValidHexChar (char c)`

Determines if the given char is a valid Hex char. Valid chars are A-F (upper or lower case) and 0-9.

### Parameters:

*c* - char to inspect

### Returns:

true if *c* is a valid hex char.

**6.718.3.3**    `bool decaf::internal::net::URIHelper::isValidHost (bool forceServer, const std::string & host) throw ( decaf::net::URISyntaxException )`

distinguish between IPv4, IPv6, domain name and validate it based on its type

### Parameters:

*forceServer* - true if the forceServer mode should be active.

*host* - Host string to validate.

### Returns:

true if the host value if a valid domain name.

### Exceptions:

*URISyntaxException* if the host is invalid and forceServer is true.

**6.718.3.4**    `bool decaf::internal::net::URIHelper::isValidIP4Word (const std::string & word)`

Check is the string passed contains a Valid IPv4 word, which is an integer in the range of 0 to 255.

**Parameters:**

*word* - string value to check.

**Returns:**

true if the word is a valid IPv4 word.

**6.718.3.5    `bool decaf::internal::net::URIHelper::isValidIPv6Address (const std::string & ipAddress)`**

Determines if the given address is valid according to the IPv6 spec.

**Parameters:**

*ipAddress* - string ip address value to validate.

**Returns:**

true if the address string is valid.

**6.718.3.6    `bool decaf::internal::net::URIHelper::isValidIPv4Address (const std::string & host)`**

Validate if the host value is a well formed IPv4 address, this is the form XXX.XXX.XXX.XXX were X is any number 0-9. and XXX is not greater than 255.

**Parameters:**

*host* - IPv4 address string to parse.

**Returns:**

true if host is a well formed IPv4 address.

**6.718.3.7    `URIType decaf::internal::net::URIHelper::parseAuthority (bool forceServer, const std::string & authority) throw ( decaf::net::URISyntaxException )`**

determine the host, port and user-info if the authority parses successfully to a server based authority behavior in error cases: if forceServer is true, throw URISyntaxException with the proper diagnostic messages. if forceServer is false assume this is a registry based uri, and just return leaving the host, port and user-info fields undefined.

and there are some error cases where URISyntaxException is thrown regardless of the forceServer parameter e.g. mal-formed ipv6 address

**Parameters:**

*forceServer*  
*authority*

**Returns:**

a **URIType** (p. 3339) instance containing the parsed data.

**Exceptions:**

*URISyntaxException*

**6.718.3.8** URIType decaf::internal::net::URIHelper::parseURI (const std::string & *uri*, bool *forceServer*) throw ( decaf::net::URISyntaxException )

Parse the passed in URI.

**Parameters:**

*uri* - the URI to Parse

*forceServer* - if true invalid URI data throws an Exception

**Returns:**

a URIType (p. 3339) instance containing the parsed data.

**Exceptions:**

*URISyntaxException* if forceServer is true and the URI is invalid.

**6.718.3.9** void decaf::internal::net::URIHelper::validateAuthority (const std::string & *uri*, const std::string & *authority*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Validate that the URI Authority Segment contains no invalid encodings.

**Parameters:**

*uri* - the full uri.

*authority* - the Authority to check.

*index* - position in the uri where Authority starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.10** void decaf::internal::net::URIHelper::validateFragment (const std::string & *uri*, const std::string & *fragment*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Validate that the URI fragment contains no invalid encodings.

**Parameters:**

*uri* - the full uri.

*fragment* - the fragment to check.

*index* - position in the uri where fragment starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.11** void decaf::internal::net::URIHelper::validatePath (const std::string & *uri*, const std::string & *path*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Validate that the URI Path Segment contains no invalid encodings.

**Parameters:**

*uri* - the full uri.

*path* - the path to check.

*index* - position in the uri where path starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.12** void decaf::internal::net::URIHelper::validateQuery (const std::string & *uri*, const std::string & *query*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Validate that the URI Query Segment contains no invalid encodings.

**Parameters:**

*uri* - the full uri.

*query* - the query to check.

*index* - position in the uri where fragment starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.13** void decaf::internal::net::URIHelper::validateScheme (const std::string & *uri*, const std::string & *scheme*, int *index*) throw ( decaf::net::URISyntaxException )

Validate the schema portin of the URI.

**Parameters:**

*uri* - the URI to check.

*scheme* - the schema section of the URI.

*index* - index in uri where schema starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.14** void decaf::internal::net::URIHelper::validateSsp (const std::string & *uri*, const std::string & *ssp*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Validate that the URI Ssp Segment contains no invalid encodings.

**Parameters:**

*uri* - the full uri.  
*ssp* - the SSP to check.  
*index* - position in the uri where Ssp starts.

**Exceptions:**

*URISyntaxException* if the fragment has errors.

**6.718.3.15** void decaf::internal::net::URIHelper::validateUserinfo (const std::string & *uri*, const std::string & *userinfo*, std::size\_t *index*) throw ( decaf::net::URISyntaxException )

Check the supplied user info for validity.

**Parameters:**

*uri* - the uri to parse.  
*userinfo* - supplied user info  
*index* - index into the URI string where the data is located.

**Returns:**

true if valid

**Exceptions:**

*URISyntaxException* if an error occurs

The documentation for this class was generated from the following file:

- src/main/decaf/internal/net/**URIHelper.h**

## 6.719 activemq::transport::failover::URIPool Class Reference

```
#include <src/main/activemq/transport/failover/URIPool.h>
```

### Public Member Functions

- **URIPool** ()  
*Create an Empty URI Pool.*
- **URIPool** (const **decaf::util::List**< **URI** > &uris)  
*Creates a new URI Pool using the given list as the initial Free List.*
- virtual ~**URIPool** ()
- **URI** **getURI** () throw ( **decaf::lang::exceptions::NoSuchElementException** )  
*Fetches the next available URI from the pool, if there are no more URIs free when this method is called it throws a `NoSuchElementException`.*
- void **addURI** (const **URI** &uri)  
*Adds a URI to the free list, callers that have previously taken one using the `getURI` method should always return the URI when they close the resource that was connected to that URI.*
- void **addURIs** (const **StlList**< **URI** > &uris)  
*Adds a List of URIs to this Pool, the method checks for duplicates already in the pool and does not add those.*
- void **removeURI** (const **URI** &uri)  
*Remove a given URI from the Free List.*
- bool **isRandomize** () const  
*Is the URI that is given randomly picked from the pool or is each one taken in sequence.*
- void **setRandomize** (bool value)  
*Sets if the URI's that are taken from the pool are chosen Randomly or are taken in the order they are in the list.*

### 6.719.1 Constructor & Destructor Documentation

#### 6.719.1.1 activemq::transport::failover::URIPool::URIPool ()

Create an Empty URI Pool.

#### 6.719.1.2 activemq::transport::failover::URIPool::URIPool (const **decaf::util::List**< **URI** > & *uris*)

Creates a new URI Pool using the given list as the initial Free List.

#### Parameters:

*uris* - List of URI to place in the Pool.

**6.719.1.3**    `virtual activemq::transport::failover::URIPool::~~URIPool ()`    [virtual]

## 6.719.2 Member Function Documentation

**6.719.2.1**    `void activemq::transport::failover::URIPool::addURI (const URI & uri)`

Adds a URI to the free list, callers that have previously taken one using the `getURI` method should always return the URI when they close the resource that was connected to that URI.

### Parameters:

*uri* - a URI previously taken from the pool.

**6.719.2.2**    `void activemq::transport::failover::URIPool::addURIs (const StlList< URI > & uris)`

Adds a List of URIs to this Pool, the method checks for duplicates already in the pool and does not add those.

### Parameters:

*uris* - List of URIs to add into the Pool.

**6.719.2.3**    `URI activemq::transport::failover::URIPool::getURI () throw ( decaf::lang::exceptions::NoSuchElementException )`

Fetches the next available URI from the pool, if there are no more URIs free when this method is called it throws a `NoSuchElementException`. Receiving the exception is not an indication that a URI won't be available in the future, the caller should react accordingly.

### Returns:

the next free URI in the Pool.

### Exceptions:

*NoSuchElementException* if there are none free currently.

**6.719.2.4**    `bool activemq::transport::failover::URIPool::isRandomize () const`  
              [inline]

Is the URI that is given randomly picked from the pool or is each one taken in sequence.

### Returns:

true if URI gets are random.

**6.719.2.5**    `void activemq::transport::failover::URIPool::removeURI (const URI & uri)`

Remove a given URI from the Free List.

**Parameters:**

*uri* - the URI to find and remove from the free list

**6.719.2.6 void activemq::transport::failover::URIPool::setRandomize (bool *value*)  
[inline]**

Sets if the URI's that are taken from the pool are chosen Randomly or are taken in the order they are in the list.

**Parameters:**

*value* - true indicates URI gets are random.

The documentation for this class was generated from the following file:

- `src/main/activemq/transport/failover/URIPool.h`



## 6.720 activemq::util::URISupport Class Reference

```
#include <src/main/activemq/util/URISupport.h>
```

### Static Public Member Functions

- static void **parseURL** (const std::string &URI, decaf::util::Properties &properties) throw ( decaf::lang::exceptions::IllegalArgumentException )  
*Parses the properties out of the provided Broker URI and sets them in the passed Properties Object.*
- static **CompositeData** **parseComposite** (const URI &uri) throw ( decaf::net::URISyntaxException )  
*Parses a Composite URI into a Composite Data instance, the Composite URI takes the for scheme://(uri1,uri2,...uriN)?param1=value1, each of the composite URIs is stored in the CompositeData's internal list.*
- static decaf::util::Properties **parseQuery** (std::string query) throw ( decaf::lang::exceptions::IllegalArgumentException )  
*Parse the Query portion of a URI String and return a Simple Properties object containing the parameter names as keys, and the parameter values and values of the Properties.*
- static void **parseQuery** (std::string query, decaf::util::Properties \*properties) throw ( decaf::lang::exceptions::IllegalArgumentException )  
*Parse the Query portion of a URI String and return a Simple Properties object containing the parameter names as keys, and the parameter values and values of the Properties.*
- static std::string **createQueryString** (const Properties &options) throw ( decaf::net::URISyntaxException )  
*Given a properties object create a string that can be appended to a URI as a valid Query string.*

### 6.720.1 Member Function Documentation

**6.720.1.1** static std::string activemq::util::URISupport::createQueryString (const Properties & *options*) throw ( decaf::net::URISyntaxException )  
 [static]

Given a properties object create a string that can be appended to a URI as a valid Query string.

#### Parameters:

*options* Properties object containing key / value query values.

#### Returns:

a valid URI query string.

#### Exceptions:

**URISyntaxException** if the string in the Properties object can't be encoded into a valid URI Query string.

**6.720.1.2** static `CompositeData` `activemq::util::URISupport::parseComposite`  
(const `URI` & *uri*) throw ( `decaf::net::URISyntaxException` ) [static]

Parses a Composite URI into a Composite Data instance, the Composite URI takes the for scheme://(uri1,uri2,...uriN)?param1=value1, each of the composite URIs is stored in the CompositeData's internal list.

**Parameters:**

*uri* - The Composite URI to parse.

**Returns:**

a new `CompositeData` (p.1088) object with the parsed data

**Exceptions:**

*URISyntaxException* if the URI is not well formed.

**6.720.1.3** static void `activemq::util::URISupport::parseQuery` (std::string  
*query*, `decaf::util::Properties` \* *properties*) throw ( `decaf::lang::exceptions::IllegalArgumentException` ) [static]

Parse the Query portion of a URI String and return a Simple Properties object containing the parameter names as keys, and the parameter values and values of the Properties.

**Parameters:**

*query* - the query string to parse.

*properties* - object pointer to get the parsed output.

**Exceptions:**

*IllegalArgumentException* if the Query string is not well formed.

**6.720.1.4** static `decaf::util::Properties` `activemq::util::URISupport::parseQuery` (std::string *query*)  
throw ( `decaf::lang::exceptions::IllegalArgumentException` ) [static]

Parse the Query portion of a URI String and return a Simple Properties object containing the parameter names as keys, and the parameter values and values of the Properties.

**Parameters:**

*query* The query string to parse and extract the encoded properties.

**Returns:**

Properties object with the parsed output.

**Exceptions:**

*IllegalArgumentException* if the Query string is not well formed.

**6.720.1.5** static void activemq::util::URISupport::parseURL (const std::string & *URI*, decaf::util::Properties & *properties*) throw ( decaf::lang::exceptions::IllegalArgumentException ) [static]

Parses the properties out of the provided Broker URI and sets them in the passed Properties Object.

**Parameters:**

*URI* a Broker URI to parse

*properties* a Properties object to set the parsed values in

**Exceptions:**

*IllegalArgumentException* if the passed URI is invalid

The documentation for this class was generated from the following file:

- src/main/activemq/util/**URISupport.h**

## 6.721 decaf::net::URISyntaxException Class Reference

#include <src/main/decaf/net/URISyntaxException.h> Inheritance diagram for decaf::net::URISyntaxException:

### Public Member Functions

- **URISyntaxException** () throw ()  
*Default Constructor.*
- **URISyntaxException** (const Exception &ex) throw ()  
*Conversion Constructor from some other Exception.*
- **URISyntaxException** (const **URISyntaxException** &ex) throw ()  
*Copy Constructor.*
- **URISyntaxException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **URISyntaxException** (const std::exception \*cause) throw ()  
*Constructor.*
- **URISyntaxException** (const char \*file, const int lineNumber, const char \*msg DECAF\_ - UNUSED) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **URISyntaxException** (const char \*file, const int lineNumber, const std::string &input, const std::string &reason) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **URISyntaxException** (const char \*file, const int lineNumber, const std::string &input, const std::string &reason, std::size\_t index) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- virtual **URISyntaxException** \* clone () const  
*Clones this exception.*
- virtual ~**URISyntaxException** () throw ()
- std::string **getInput** () const
- std::string **getReason** () const
- std::size\_t **getIndex** () const

### 6.721.1 Constructor & Destructor Documentation

#### 6.721.1.1 decaf::net::URISyntaxException::URISyntaxException () throw () [inline]

Default Constructor.

**6.721.1.2 decaf::net::URISyntaxException::URISyntaxException (const Exception & *ex*) throw () [inline]**

Conversion Constructor from some other Exception.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.721.1.3 decaf::net::URISyntaxException::URISyntaxException (const URISyntaxException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* An exception that should become this type of Exception

**6.721.1.4 decaf::net::URISyntaxException::URISyntaxException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.721.1.5 decaf::net::URISyntaxException::URISyntaxException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.721.1.6 decaf::net::URISyntaxException::URISyntaxException (const char \* *file*, const int *lineNumber*, const char \**msg* *DECAF\_UNUSED*) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs  
*lineNumber* The line number where the exception occurred.  
*msg* The message to report  
... list of primitives that are formatted into the message

**6.721.1.7** `decaf::net::URISyntaxException::URISyntaxException (const char * file,  
const int lineNumber, const std::string & input, const std::string &  
reason) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the input string that caused the error and the reason for the error.

**Parameters:**

*file* The file name where exception occurs.  
*lineNumber* The line number where the exception occurred.  
*input* The **URL** (p.3347) that caused the exception.  
*reason* The reason for the failure.

**6.721.1.8** `decaf::net::URISyntaxException::URISyntaxException (const char * file,  
const int lineNumber, const std::string & input, const std::string &  
reason, std::size_t index) throw ()` [inline]

Constructor - Initializes the file name and line number where this message occurred. Sets the input string that caused the error and the reason for the error.

**Parameters:**

*file* The file name where exception occurs  
*lineNumber* The line number where the exception occurred.  
*input* The input **URI** (p.3308) that caused the exception  
*reason* The reason for the failure.  
*index* The index in the **URI** (p.3308) string where the error occurred.

**6.721.1.9** `virtual decaf::net::URISyntaxException::~~URISyntaxException () throw  
()` [inline, virtual]

**6.721.2 Member Function Documentation**

**6.721.2.1** `virtual URISyntaxException* decaf::net::URISyntaxException::clone ()  
const` [inline, virtual]

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

**Returns:**

a new Exception instance that is a copy of this Exception object.

Reimplemented from **decaf::lang::Exception** (p.1577).

**6.721.2.2** `std::size_t decaf::net::URISyntaxException::getIndex () const` [inline]**Returns:**

the index in the input string where the error occurred or -1

**6.721.2.3** `std::string decaf::net::URISyntaxException::getInput () const` [inline]**Returns:**

the Input string that cause this exception or ""

**6.721.2.4** `std::string decaf::net::URISyntaxException::getReason () const` [inline]**Returns:**

the Reason given for this failure, or ""

The documentation for this class was generated from the following file:

- `src/main/decaf/net/URISyntaxException.h`

## 6.722 decaf::internal::net::URIType Class Reference

Basic type object that holds data that composes a given URI.

```
#include <src/main/decaf/internal/net/URIType.h>
```

### Public Member Functions

- **URIType** (const std::string &source)
- **URIType** ()
- virtual ~**URIType** ()
- std::string **getSource** () const  
*Gets the source URI string that was parsed to obtain this **URIType** (p. 3339) instance and the resulting data,.*
- void **setSource** (const std::string &source)  
*Sets the source URI string that was parsed to obtain this **URIType** (p. 3339) instance and the resulting data,.*
- std::string **getScheme** () const  
*Gets the Scheme of the URI, e.g.*
- void **setScheme** (const std::string &scheme)  
*Sets the Scheme of the URI, e.g.*
- std::string **getSchemeSpecificPart** () const  
*Gets the Scheme Specific Part of the URI.*
- void **setSchemeSpecificPart** (const std::string &schemeSpecificPart)  
*Sets the Scheme Specific Part of the URI.*
- std::string **getAuthority** () const  
*Gets the Authority of the URI.*
- void **setAuthority** (const std::string &authority)  
*Sets the Authority of the URI.*
- std::string **getUserInfo** () const  
*Gets the user info part of the URI, e.g.*
- void **setUserInfo** (const std::string &userinfo)  
*Sets the user info part of the URI, e.g.*
- std::string **getHost** () const  
*Gets the Host name part of the URI.*
- void **setHost** (const std::string &host)  
*Sets the Host name part of the URI.*
- int **getPort** () const



*Gets the port part of the URI.*

- void **setPort** (int port)  
*Sets the port part of the URI.*
- std::string **getPath** () const  
*Gets the Path part of the URI.*
- void **setPath** (const std::string &path)  
*Sets the Path part of the URI.*
- std::string **getQuery** () const  
*Gets the Query part of the URI.*
- void **setQuery** (const std::string &query)  
*Sets the Query part of the URI.*
- std::string **getFragment** () const  
*Gets the Fragment part of the URI.*
- void **setFragment** (const std::string &fragment)  
*Sets the Fragment part of the URI.*
- bool **isOpaque** () const  
*Gets if the URI is Opaque.*
- void **setOpaque** (bool opaque)  
*Sets if the URI is Opaque.*
- bool **isAbsolute** () const  
*Gets if the URI is Absolute.*
- void **setAbsolute** (bool absolute)  
*Sets if the URI is Absolute.*
- bool **isServerAuthority** () const  
*Gets if the URI is a Server Authority.*
- void **setServerAuthority** (bool serverAuthority)  
*Sets if the URI is a Server Authority.*
- bool **isValid** () const  
*Gets if the URI is valid, meaning that the source has been set and parsed and all relevant data fields have been set.*
- void **setValid** (bool valid)  
*Sets if the URI is valid, meaning that the source has been set and parsed and all relevant data fields have been set.*

### 6.722.1 Detailed Description

Basic type object that holds data that composes a given URI.

### 6.722.2 Constructor & Destructor Documentation

**6.722.2.1** `decaf::internal::net::URIType::URIType (const std::string & source)` `[inline]`

**6.722.2.2** `decaf::internal::net::URIType::URIType ()` `[inline]`

**6.722.2.3** `virtual decaf::internal::net::URIType::~~URIType ()` `[inline, virtual]`

### 6.722.3 Member Function Documentation

**6.722.3.1** `std::string decaf::internal::net::URIType::getAuthority () const` `[inline]`

Gets the Authority of the URI.

**Returns:**

Authority part string.

**6.722.3.2** `std::string decaf::internal::net::URIType::getFragment () const` `[inline]`

Gets the Fragment part of the URI.

**Returns:**

Fragment part string.

**6.722.3.3** `std::string decaf::internal::net::URIType::getHost () const` `[inline]`

Gets the Host name part of the URI.

**Returns:**

Host name part string.

**6.722.3.4** `std::string decaf::internal::net::URIType::getPath () const` `[inline]`

Gets the Path part of the URI.

**Returns:**

Path part string.

**6.722.3.5** `int decaf::internal::net::URIType::getPort () const [inline]`

Gets the port part of the URL.

**Returns:**

port part string, -1 if not set.

**6.722.3.6** `std::string decaf::internal::net::URIType::getQuery () const [inline]`

Gets the Query part of the URL.

**Returns:**

Query part string.

**6.722.3.7** `std::string decaf::internal::net::URIType::getScheme () const [inline]`

Gets the Scheme of the URL, e.g. scheme ("http"/"ftp"/...).

**Returns:**

scheme part string.

**6.722.3.8** `std::string decaf::internal::net::URIType::getSchemeSpecificPart () const [inline]`

Gets the Scheme Specific Part of the URL.

**Returns:**

scheme specific part string.

**6.722.3.9** `std::string decaf::internal::net::URIType::getSource () const [inline]`

Gets the source URI string that was parsed to obtain this **URIType** (p.3339) instance and the resulting data,.

**Returns:**

the source URI string

**6.722.3.10** `std::string decaf::internal::net::URIType::getUserInfo () const [inline]`

Gets the user info part of the URL, e.g. user name, as in `http://user:passwd@host:port/`

**Returns:**

user info part string.

**6.722.3.11** `bool decaf::internal::net::URIType::isAbsolute () const [inline]`

Gets if the URI is Absolute.

**Returns:**

true if Absolute.

**6.722.3.12** `bool decaf::internal::net::URIType::isOpaque () const [inline]`

Gets if the URI is Opaque.

**Returns:**

true if opaque.

**6.722.3.13** `bool decaf::internal::net::URIType::isServerAuthority () const [inline]`

Gets if the URI is a Server Authority.

**Returns:**

true if Server Authority.

**6.722.3.14** `bool decaf::internal::net::URIType::isValid () const [inline]`

Gets if the URI is valid, meaning that the source has been set and parsed and all relevant data fields have been set.

**Returns:**

true if the **URIType** (p. 3339) contains valid data.

**6.722.3.15** `void decaf::internal::net::URIType::setAbsolute (bool absolute) [inline]`

Sets if the URI is Absolute.

**Parameters:**

*absolute* - true if Absolute.

**6.722.3.16** `void decaf::internal::net::URIType::setAuthority (const std::string & authority) [inline]`

Sets the Authority of the URI.

**Parameters:**

*authority* Authority part string.

**6.722.3.17** void decaf::internal::net::URIType::setFragment (const std::string & *fragment*) [inline]

Sets the Fragment part of the URL.

**Parameters:**

*fragment* - Fragment part string.

**6.722.3.18** void decaf::internal::net::URIType::setHost (const std::string & *host*) [inline]

Sets the Host name part of the URL.

**Parameters:**

*host* - Host name part string.

**6.722.3.19** void decaf::internal::net::URIType::setOpaque (bool *opaque*) [inline]

Sets if the URI is Opaque.

**Parameters:**

*opaque* true if opaque.

**6.722.3.20** void decaf::internal::net::URIType::setPath (const std::string & *path*) [inline]

Sets the Path part of the URL.

**Parameters:**

*path* - Path part string.

**6.722.3.21** void decaf::internal::net::URIType::setPort (int *port*) [inline]

Sets the port part of the URL.

**Parameters:**

*port* - port part string, -1 if not set.

**6.722.3.22** void decaf::internal::net::URIType::setQuery (const std::string & *query*) [inline]

Sets the Query part of the URL.

**Parameters:**

*query* - Query part string.

**6.722.3.23**    `void decaf::internal::net::URIType::setScheme (const std::string & scheme)` [inline]

Sets the Scheme of the URI, e.g. `scheme ("http"/"ftp"/...)`.

**Parameters:**

*scheme* - scheme part string.

**6.722.3.24**    `void decaf::internal::net::URIType::setSchemeSpecificPart (const std::string & schemeSpecificPart)` [inline]

Sets the Scheme Specific Part of the URI.

**Parameters:**

*schemeSpecificPart* - scheme specific part string.

**6.722.3.25**    `void decaf::internal::net::URIType::setServerAuthority (bool serverAuthority)` [inline]

Sets if the URI is a Server Authority.

**Parameters:**

*serverAuthority* - true if Server Authority.

**6.722.3.26**    `void decaf::internal::net::URIType::setSource (const std::string & source)` [inline]

Sets the source URI string that was parsed to obtain this **URIType** (p. 3339) instance and the resulting data,.

**Parameters:**

*source* - the source URI string

**6.722.3.27**    `void decaf::internal::net::URIType::setUserInfo (const std::string & userinfo)` [inline]

Sets the user info part of the URI, e.g. user name, as in `http://user:passwd@host:port/`

**Parameters:**

*userinfo* - user info part string.

**6.722.3.28**    `void decaf::internal::net::URIType::setValid (bool valid)` [inline]

Sets if the URI is valid, meaning that the source has been set and parsed and all relevant data fields have been set.

**Parameters:**

*valid* - true if the **URIType** (p. 3339) contains valid data.

The documentation for this class was generated from the following file:

- src/main/decaf/internal/net/**URIType.h**

## 6.723 decaf::net::URL Class Reference

Class **URL** (p. 3347) represents a Uniform Resource Locator, a pointer to a "resource" on the World Wide Web.

```
#include <src/main/decaf/net/URL.h>
```

### Public Member Functions

- **URL** ()
- **URL** (const std::string &url)
- virtual ~**URL** ()

#### 6.723.1 Detailed Description

Class **URL** (p. 3347) represents a Uniform Resource Locator, a pointer to a "resource" on the World Wide Web. A resource can be something as simple as a file or a directory, or it can be a reference to a more complicated object, such as a query to a database or to a search engine. More information on the types of URLs and their formats can be found at:

```
http://www.ksc.nasa.gov/facts/internet/url-primer.html
```

In general, a **URL** (p. 3347) can be broken into several parts. The previous example of a **URL** (p. 3347) indicates that the protocol to use is http (HyperText Transfer Protocol) and that the information resides on a host machine named www.ksc.nasa.gov. The information on that host machine is named /facts/internet/url-primer.html. The exact meaning of this name on the host machine is both protocol dependent and host dependent. The information normally resides in a file, but it could be generated on the fly. This component of the **URL** (p. 3347) is called the path component.

A **URL** (p. 3347) can optionally specify a "port", which is the port number to which the TCP connection is made on the remote host machine. If the port is not specified, the default port for the protocol is used instead. For example, the default port for http is 80. An alternative port could be specified as:

```
http://www.ksc.nasa.gov:80/facts/internet/url-primer.html
```

The syntax of **URL** (p. 3347) is defined by RFC 2396: Uniform Resource Identifiers (**URI** (p. 3308)): Generic Syntax, amended by RFC 2732: Format for Literal IPv6 Addresses in URLs. The Literal IPv6 address format also supports scope\_ids. The syntax and usage of scope\_ids is described here.

A **URL** (p. 3347) may have appended to it a "fragment", also known as a "ref" or a "reference". The fragment is indicated by the sharp sign character "#" followed by more characters. For example,

```
http://www.apache.org/cms/index.html#chapter1
```

This fragment is not technically part of the **URL** (p. 3347). Rather, it indicates that after the specified resource is retrieved, the application is specifically interested in that part of the document that has the tag chapter1 attached to it. The meaning of a tag is resource specific.

An application can also specify a "relative URL", which contains only enough information to reach the resource relative to another **URL** (p. 3347). Relative URLs are frequently used within HTML pages. For example, if the contents of the **URL** (p. 3347):

```
http://www.apache.org/cms/index.html
```



contained within it the relative **URL** (p. 3347):

FAQ.html

it would be a shorthand for:

`http://www.apache.org/cms/FAQ.html`

The relative **URL** (p. 3347) need not specify all the components of a **URL** (p. 3347). If the protocol, host name, or port number is missing, the value is inherited from the fully specified **URL** (p. 3347). The file component must be specified. The optional fragment is not inherited.

The **URL** (p. 3347) class does not itself encode or decode any **URL** (p. 3347) components according to the escaping mechanism defined in RFC2396. It is the responsibility of the caller to encode any fields, which need to be escaped prior to calling **URL** (p. 3347), and also to decode any escaped fields, that are returned from **URL** (p. 3347). Furthermore, because **URL** (p. 3347) has no knowledge of **URL** (p. 3347) escaping, it does not recognise equivalence between the encoded or decoded form of the same **URL** (p. 3347). For example, the two URLs:

`http://foo.com/hello world/` and `http://foo.com/hello%20world`

would be considered not equal to each other.

Note, the **URI** (p. 3308) class does perform escaping of its component fields in certain circumstances. The recommended way to manage the encoding and decoding of URLs is to use **URI** (p. 3308), and to convert between these two classes using `toURI()` and `URI.toURL()` (p. 3318).

The **URLEncoder** (p. 3350) and **URLDecoder** (p. 3349) classes can also be used, but only for HTML form encoding, which is not the same as the encoding scheme defined in RFC2396.

## 6.723.2 Constructor & Destructor Documentation

### 6.723.2.1 decaf::net::URL::URL ()

### 6.723.2.2 decaf::net::URL::URL (const std::string & url)

### 6.723.2.3 virtual decaf::net::URL::~~URL () [inline, virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/net/URL.h`

## 6.724 decaf::net::URLDecoder Class Reference

```
#include <src/main/decaf/net/URLDecoder.h>
```

### Public Member Functions

- virtual `~URLDecoder ()`

### Static Public Member Functions

- static `std::string decode (const std::string &value)`  
*Decodes the string argument which is assumed to be encoded in the `x-www-form-urlencoded` MIME content type.*

### 6.724.1 Constructor & Destructor Documentation

**6.724.1.1** `virtual decaf::net::URLDecoder::~~URLDecoder ()` [inline, virtual]

### 6.724.2 Member Function Documentation

**6.724.2.1** `static std::string decaf::net::URLDecoder::decode (const std::string &value)` [static]

Decodes the string argument which is assumed to be encoded in the `x-www-form-urlencoded` MIME content type. '+' will be converted to space, '%' and two following hex digit characters are converted to the equivalent byte value. All other characters are passed through unmodified.

e.g. "A+B+C %24%25" -> "A B C \$%"

#### Parameters:

*value* - string The encoded string.

#### Returns:

The decoded version as a string.

The documentation for this class was generated from the following file:

- `src/main/decaf/net/URLDecoder.h`

## 6.725 decaf::net::URLEncoder Class Reference

```
#include <src/main/decaf/net/URLEncoder.h>
```

### Public Member Functions

- virtual `~URLEncoder ()`

### Static Public Member Functions

- static `std::string encode (const std::string &value)`

*This class contains a utility method for converting a string to the format required by the `application/x-www-form-urlencoded` MIME content type.*

### 6.725.1 Constructor & Destructor Documentation

**6.725.1.1** virtual `decaf::net::URLEncoder::~~URLEncoder ()` [inline, virtual]

### 6.725.2 Member Function Documentation

**6.725.2.1** static `std::string decaf::net::URLEncoder::encode (const std::string &value)` [static]

This class contains a utility method for converting a string to the format required by the `application/x-www-form-urlencoded` MIME content type. All characters except letters ('a'..'z', 'A'..'Z') and numbers ('0'..'9') and characters '.', '-', '\*', '\_' are converted into their hexadecimal value prepended by ".

For example: '#' -> 23

In addition, spaces are substituted by '+'

#### Parameters:

*value* - the string to be converted

#### Returns:

the converted string

The documentation for this class was generated from the following file:

- `src/main/decaf/net/URLEncoder.h`

## 6.726 activemq::util::Usage Class Reference

#include <src/main/activemq/util/Usage.h> Inheritance diagram for activemq::util::Usage:

### Public Member Functions

- virtual `~Usage ()`
- virtual void `waitForSpace ()=0`  
*Waits forever for more space to be returned to this **Usage** (p. 3351) Manager.*
- virtual void `waitForSpace (unsigned int timeout)=0`  
*Waits for more space to be returned to this **Usage** (p. 3351) Manager, times out when the given time span in milliseconds elapses.*
- virtual void `enqueueUsage (unsigned long long value)=0`  
*Tries to increase the usage by value amount but blocks if this object is currently full.*
- virtual void `increaseUsage (unsigned long long value)=0`  
*Increases the usage by the value amount.*
- virtual void `decreaseUsage (unsigned long long value)=0`  
*Decreases the usage by the value amount.*
- virtual bool `isFull () const =0`  
*Returns true if this **Usage** (p. 3351) instance is full, i.e.*

### 6.726.1 Constructor & Destructor Documentation

**6.726.1.1** virtual `activemq::util::Usage::~~Usage ()` [inline, virtual]

### 6.726.2 Member Function Documentation

**6.726.2.1** virtual void `activemq::util::Usage::decreaseUsage (unsigned long long value)` [pure virtual]

Decreases the usage by the value amount.

#### Parameters:

*value* Amount of space to return to the pool

Implemented in `activemq::util::MemoryUsage` (p. 2142).

**6.726.2.2** virtual void `activemq::util::Usage::enqueueUsage (unsigned long long value)` [pure virtual]

Tries to increase the usage by value amount but blocks if this object is currently full.

**Parameters:**

*value* Amount of usage in bytes to add.

Implemented in **activemq::util::MemoryUsage** (p. 2142).

**6.726.2.3 virtual void activemq::util::Usage::increaseUsage (unsigned long long *value*) [pure virtual]**

Increases the usage by the value amount.

**Parameters:**

*value* Amount of usage to add.

Implemented in **activemq::util::MemoryUsage** (p. 2143).

**6.726.2.4 virtual bool activemq::util::Usage::isFull () const [pure virtual]**

Returns true if this **Usage** (p. 3351) instance is full, i.e. **Usage** (p. 3351)  $\geq 100\%$

**Returns:**

true if **Usage** (p. 3351) is at the Full point.

Implemented in **activemq::util::MemoryUsage** (p. 2143).

**6.726.2.5 virtual void activemq::util::Usage::waitForSpace (unsigned int *timeout*) [pure virtual]**

Waits for more space to be returned to this **Usage** (p. 3351) Manager, times out when the given time span in milliseconds elapses.

**Parameters:**

*timeout* The time to wait for more space.

Implemented in **activemq::util::MemoryUsage** (p. 2143).

**6.726.2.6 virtual void activemq::util::Usage::waitForSpace () [pure virtual]**

Waits forever for more space to be returned to this **Usage** (p. 3351) Manager.

Implemented in **activemq::util::MemoryUsage** (p. 2144).

The documentation for this class was generated from the following file:

- src/main/activemq/util/Usage.h

## 6.727 decaf::io::UTFDataFormatException Class Reference

Thrown from classes that attempt to read or write a UTF-8 encoded string and an encoding error is encountered.

#include <src/main/decaf/io/UTFDataFormatException.h>Inheritance diagram for decaf::io::UTFDataFormatException:

### Public Member Functions

- **UTFDataFormatException** () throw ()  
*Default Constructor.*
- **UTFDataFormatException** (const lang::Exception &ex) throw ()  
*Copy Constructor.*
- **UTFDataFormatException** (const UTFDataFormatException &ex) throw ()  
*Copy Constructor.*
- **UTFDataFormatException** (const char \*file, const int lineNumber, const std::exception \*cause, const char \*msg,...) throw ()  
*Constructor - Initializes the file name and line number where this message occurred.*
- **UTFDataFormatException** (const std::exception \*cause) throw ()  
*Constructor.*
- **UTFDataFormatException** (const char \*file, const int lineNumber, const char \*msg,...) throw ()  
*Constructor.*
- virtual **UTFDataFormatException \* clone** () const  
*Clones this exception.*
- virtual **~UTFDataFormatException** () throw ()

### 6.727.1 Detailed Description

Thrown from classes that attempt to read or write a UTF-8 encoded string and an encoding error is encountered.

Since:

1.0

### 6.727.2 Constructor & Destructor Documentation

#### 6.727.2.1 decaf::io::UTFDataFormatException::UTFDataFormatException () throw () [inline]

Default Constructor.

**6.727.2.2 decaf::io::UTFDataFormatException::UTFDataFormatException (const lang::Exception & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* the exception to copy

**6.727.2.3 decaf::io::UTFDataFormatException::UTFDataFormatException (const UTFDataFormatException & *ex*) throw () [inline]**

Copy Constructor.

**Parameters:**

*ex* the exception to copy, which is an instance of this type

**6.727.2.4 decaf::io::UTFDataFormatException::UTFDataFormatException (const char \* *file*, const int *lineNumber*, const std::exception \* *cause*, const char \* *msg*, ...) throw () [inline]**

Constructor - Initializes the file name and line number where this message occurred. Sets the message to report, using an optional list of arguments to parse into the message

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*cause* The exception that was the cause for this one to be thrown.

*msg* The message to report

... list of primitives that are formatted into the message

**6.727.2.5 decaf::io::UTFDataFormatException::UTFDataFormatException (const std::exception \* *cause*) throw () [inline]**

Constructor.

**Parameters:**

*cause* Pointer to the exception that caused this one to be thrown, the object is cloned caller retains ownership.

**6.727.2.6 decaf::io::UTFDataFormatException::UTFDataFormatException (const char \* *file*, const int *lineNumber*, const char \* *msg*, ...) throw () [inline]**

Constructor.

**Parameters:**

*file* The file name where exception occurs

*lineNumber* The line number where the exception occurred.

*msg* The message to report

... list of primitives that are formatted into the message

**6.727.2.7** `virtual decaf::io::UTFDataFormatException::~~UTFDataFormatException  
() throw () [inline, virtual]`

### 6.727.3 Member Function Documentation

**6.727.3.1** `virtual UTFDataFormatException* de-  
caf::io::UTFDataFormatException::clone () const  
[inline, virtual]`

Clones this exception. This is useful for cases where you need to preserve the type of the original exception as well as the message. All subclasses should override.

#### Returns:

A new instance of an Exception object that is a copy of this instance.

Reimplemented from **decaf::io::IOException** (p. 1822).

The documentation for this class was generated from the following file:

- `src/main/decaf/io/UTFDataFormatException.h`



## 6.728 decaf::util::UUID Class Reference

A class that represents an immutable universally unique identifier (**UUID** (p. 3356)).

#include <src/main/decaf/util/UUID.h> Inheritance diagram for decaf::util::UUID:

### Public Member Functions

- **UUID** (long long mostSigBits, long long leastSigBits)  
*Constructs a new **UUID** (p. 3356) using the specified data.*
- virtual ~**UUID** ()
- virtual int **compareTo** (const **UUID** &value) const  
*Compare the given **UUID** (p. 3356) to this one.*
- virtual bool **equals** (const **UUID** &value) const  
*Compares this **UUID** (p. 3356) to the one given, returns true if they are equal.*
- virtual bool **operator==** (const **UUID** &value) const  
*Compares equality between this object and the one passed.*
- virtual bool **operator<** (const **UUID** &value) const  
*Compares this object to another and returns true if this object is considered to be less than the one passed.*
- virtual std::string **toString** () const  
*Returns a String object representing this **UUID** (p. 3356).*
- virtual long long **getLeastSignificantBits** () const
- virtual long long **getMostSignificantBits** () const
- virtual long long **node** () throw ( lang::exceptions::UnsupportedOperationException )  
*The node value associated with this **UUID** (p. 3356).*
- virtual long long **timestamp** () throw ( lang::exceptions::UnsupportedOperationException )  
*The timestamp value associated with this **UUID** (p. 3356).*
- virtual int **clockSequence** () throw ( lang::exceptions::UnsupportedOperationException )  
*The clock sequence value associated with this **UUID** (p. 3356).*
- virtual int **variant** () throw ( lang::exceptions::UnsupportedOperationException )  
*The variant number associated with this **UUID** (p. 3356).*
- virtual int **version** () throw ( lang::exceptions::UnsupportedOperationException )  
*The version number associated with this **UUID** (p. 3356).*

## Static Public Member Functions

- static **UUID** **randomUUID** ()  
*Static factory to retrieve a type 4 (pseudo randomly generated) **UUID** (p. 3356).*
- static **UUID** **nameUUIDFromBytes** (const std::vector< char > &name)  
*Static factory to retrieve a type 3 (name based) **UUID** (p. 3356) based on the specified byte array.*
- static **UUID** **nameUUIDFromBytes** (const char \*name, std::size\_t size)  
*Static factory to retrieve a type 3 (name based) **UUID** (p. 3356) based on the specified byte array.*
- static **UUID** **fromString** (const std::string &name) throw (lang::exceptions::IllegalArgumentException )  
*Creates a **UUID** (p. 3356) from the string standard representation as described in the **toString()** (p. 3361) method.*

### 6.728.1 Detailed Description

A class that represents an immutable universally unique identifier (**UUID** (p. 3356)). A **UUID** (p. 3356) represents a 128-bit value.

There exist different variants of these global identifiers. The methods of this class are for manipulating the Leach-Salz variant, although the constructors allow the creation of any variant of **UUID** (p. 3356) (described below).

The layout of a variant 2 (Leach-Salz) **UUID** (p. 3356) is as follows: The most significant long consists of the following unsigned fields:

```
0xFFFFFFFF00000000 time_low 0x00000000FFFFFF00 time_mid 0x000000000000F000 version
0x00000000000000FF time_hi
```

The least significant long consists of the following unsigned fields:

```
0xC000000000000000 variant 0x3FFF000000000000 clock_seq 0x0000FFFFFFFFFFFF node
```

The variant field contains a value which identifies the layout of the **UUID** (p. 3356). The bit layout described above is valid only for a **UUID** (p. 3356) with a variant value of 2, which indicates the Leach-Salz variant.

The version field holds a value that describes the type of this **UUID** (p. 3356). There are four different basic types of UUIDs: time-based, DCE security, name-based, and randomly generated UUIDs. These types have a version value of 1, 2, 3 and 4, respectively.

For more information including algorithms used to create UUIDs, see the Internet-Draft UUIDs and GUIDs or the standards body definition at ISO/IEC 11578:1996.

### 6.728.2 Constructor & Destructor Documentation

#### 6.728.2.1 decaf::util::UUID::UUID (long long *mostSigBits*, long long *leastSigBits*)

Constructs a new **UUID** (p. 3356) using the specified data. *mostSigBits* is used for the most significant 64 bits of the **UUID** (p. 3356) and *leastSigBits* becomes the least significant 64 bits of the **UUID** (p. 3356).

**Parameters:***mostSigBits**leastSigBits***6.728.2.2** virtual decaf::util::UUID::~~UUID () [virtual]**6.728.3 Member Function Documentation****6.728.3.1** virtual int decaf::util::UUID::clockSequence () throw (lang::exceptions::UnsupportedOperationException) [virtual]

The clock sequence value associated with this **UUID** (p.3356). The 14 bit clock sequence value is constructed from the clock sequence field of this **UUID** (p.3356). The clock sequence field is used to guarantee temporal uniqueness in a time-based **UUID** (p.3356).

The clockSequence value is only meaningful in a time-based **UUID** (p.3356), which has version type 1. If this **UUID** (p.3356) is not a time-based **UUID** (p.3356) then this method throws UnsupportedOperationException.

**Returns:**

the clockSequeunce associated with a V1 **UUID** (p.3356)

**Exceptions:***UnsupportedOperationException***6.728.3.2** virtual int decaf::util::UUID::compareTo (const UUID & *value*) const [virtual]

Compare the given **UUID** (p.3356) to this one.

**Parameters:**

*value* - the **UUID** (p.3356) to compare to

**6.728.3.3** virtual bool decaf::util::UUID::equals (const UUID & *value*) const [virtual]

Compares this **UUID** (p.3356) to the one given, returns true if they are equal.

**Parameters:**

*value* - the **UUID** (p.3356) to compare to.

**Returns:**

true if UUIDs are the same.

**6.728.3.4** `static UUID decaf::util::UUID::fromString (const std::string & name)  
throw ( lang::exceptions::IllegalArgumentException ) [static]`

Creates a **UUID** (p. 3356) from the string standard representation as described in the `toString()` (p. 3361) method.

**Parameters:**

*name* - a string to be used to construct a **UUID** (p. 3356).

**Returns:**

type 3 **UUID** (p. 3356)

**6.728.3.5** `virtual long long decaf::util::UUID::getLeastSignificantBits () const  
[virtual]`

**Returns:**

the most significant 64 bits of this **UUID**'s 128 bit value.

**6.728.3.6** `virtual long long decaf::util::UUID::getMostSignificantBits () const  
[virtual]`

**Returns:**

the most significant 64 bits of this **UUID**'s 128 bit value.

**6.728.3.7** `static UUID decaf::util::UUID::nameUUIDFromBytes (const char *  
name, std::size_t size) [static]`

Static factory to retrieve a type 3 (name based) **UUID** (p. 3356) based on the specified byte array.

**Parameters:**

*name* - a byte array to be used to construct a **UUID** (p. 3356).

*size* - the size of the byte array, or number of bytes to use.

**Returns:**

type 3 **UUID** (p. 3356)

**6.728.3.8** `static UUID decaf::util::UUID::nameUUIDFromBytes (const std::vector<  
char > & name) [static]`

Static factory to retrieve a type 3 (name based) **UUID** (p. 3356) based on the specified byte array.

**Parameters:**

*name* - a byte array to be used to construct a **UUID** (p. 3356).

**Returns:**

type 3 **UUID** (p. 3356)

**6.728.3.9** `virtual long long decaf::util::UUID::node () throw (lang::exceptions::UnsupportedOperationException) [virtual]`

The node value associated with this **UUID** (p. 3356). The 48 bit node value is constructed from the node field of this **UUID** (p. 3356). This field is intended to hold the IEEE 802 address of the machine that generated this **UUID** (p. 3356) to guarantee spatial uniqueness.

The node value is only meaningful in a time-based **UUID** (p. 3356), which has version type 1. If this **UUID** (p. 3356) is not a time-based **UUID** (p. 3356) then this method throws `UnsupportedOperationException`.

**Returns:**

the node value of this **UUID** (p. 3356)

**Exceptions:**

*UnsupportedOperationException*

**6.728.3.10** `virtual bool decaf::util::UUID::operator< (const UUID & value) const [virtual]`

Compares this object to another and returns true if this object is considered to be less than the one passed. This

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.728.3.11** `virtual bool decaf::util::UUID::operator== (const UUID & value) const [virtual]`

Compares equality between this object and the one passed.

**Parameters:**

*value* - the value to be compared to this one.

**Returns:**

true if this object is equal to the one passed.

**6.728.3.12** `static UUID decaf::util::UUID::randomUUID () [static]`

Static factory to retrieve a type 4 (pseudo randomly generated) **UUID** (p. 3356). The **UUID** (p. 3356) is generated using a cryptographically strong pseudo random number generator.

**Returns:**

type 4 **UUID** (p. 3356)

**6.728.3.13** `virtual long long decaf::util::UUID::timestamp () throw (lang::exceptions::UnsupportedOperationException ) [virtual]`

The timestamp value associated with this **UUID** (p. 3356). The 60 bit timestamp value is constructed from the `time_low`, `time_mid`, and `time_hi` fields of this **UUID** (p. 3356). The resulting timestamp is measured in 100-nanosecond units since midnight, October 15, 1582 UTC.

The timestamp value is only meaningful in a time-based **UUID** (p. 3356), which has version type 1. If this **UUID** (p. 3356) is not a time-based **UUID** (p. 3356) then this method throws `UnsupportedOperationException`.

**Returns:**

the timestamp associated with a V1 **UUID** (p. 3356)

**Exceptions:**

*UnsupportedOperationException*

**6.728.3.14** `virtual std::string decaf::util::UUID::toString () const [virtual]`

Returns a `String` object representing this **UUID** (p. 3356). **UUID**'s are formatted as: 00112233-4455-6677-8899-AABBCCDDEEFF whose length is 36.

**Returns:**

formatted string for this **UUID** (p. 3356)

**6.728.3.15** `virtual int decaf::util::UUID::variant () throw (lang::exceptions::UnsupportedOperationException ) [virtual]`

The variant number associated with this **UUID** (p. 3356). The variant number describes the layout of the **UUID** (p. 3356). The variant number has the following meaning:

\* 0 Reserved for NCS backward compatibility \* 2 The Leach-Salz variant (used by this class) \* 6 Reserved, Microsoft Corporation backward compatibility \* 7 Reserved for future definition

**Returns:**

the variant associated with a V1 **UUID** (p. 3356)

**Exceptions:**

*UnsupportedOperationException*

**6.728.3.16** `virtual int decaf::util::UUID::version () throw (lang::exceptions::UnsupportedOperationException ) [virtual]`

The version number associated with this **UUID** (p. 3356). The version number describes how this **UUID** (p. 3356) was generated. The version number has the following meaning:

\* 1 Time-based **UUID** (p. 3356) \* 2 DCE security **UUID** (p. 3356) \* 3 Name-based **UUID** (p. 3356) \* 4 Randomly generated **UUID** (p. 3356)

**Returns:**

the version associated with a V1 **UUID** (p. 3356)

**Exceptions:**

*UnsupportedOperationException*

The documentation for this class was generated from the following file:

- src/main/decaf/util/**UUID.h**

## 6.729 activemq::wireformat::WireFormat Class Reference

Provides a mechanism to marshal commands into and out of packets or into and out of streams, Channels and Datagrams.

#include <src/main/activemq/wireformat/WireFormat.h> Inheritance diagram for activemq::wireformat::WireFormat:

### Public Member Functions

- virtual `~WireFormat ()`
- virtual void `marshal (const Pointer< commands::Command > &command, const activemq::transport::Transport *transport, decaf::io::DataOutputStream *out)=0`  
throw ( decaf::io::IOException )  
*Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.*
- virtual `Pointer< commands::Command > unmarshal (const activemq::transport::Transport *transport, decaf::io::DataInputStream *in)=0`  
throw ( decaf::io::IOException )  
*Stream based unmarshaling, blocks on reads on the input stream until a complete command has been read and unmarshaled into the correct form.*
- virtual void `setVersion (int version)=0`  
*Set the Version.*
- virtual int `getVersion () const =0`  
*Get the Version.*
- virtual bool `hasNegotiator () const =0`  
*Returns true if this WireFormat (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.*
- virtual bool `inReceive () const =0`  
*Indicates if the WireFormat object is in the process of receiving a message.*
- virtual `Pointer< transport::Transport > createNegotiator (const Pointer< transport::Transport > &transport)=0` throw ( decaf::lang::exceptions::UnsupportedOperationException )  
*If the Transport Provides a Negotiator this method will create and return a new instance of the Negotiator.*

### 6.729.1 Detailed Description

Provides a mechanism to marshal commands into and out of packets or into and out of streams, Channels and Datagrams.

**Version:**



## Revision

1.1

## 6.729.2 Constructor & Destructor Documentation

**6.729.2.1** virtual `activemq::wireformat::WireFormat::~WireFormat ()` [inline, virtual]

## 6.729.3 Member Function Documentation

**6.729.3.1** virtual `Pointer<transport::Transport> activemq::wireformat::WireFormat::createNegotiator (const Pointer< transport::Transport > & transport) throw ( decaf::lang::exceptions::UnsupportedOperationException )` [pure virtual]

If the Transport Provides a Negotiator this method will create and return a new instance of the Negotiator.

### Parameters:

*transport* - the Transport to Wrap the Negotiator around.

### Returns:

new instance of a **WireFormatNegotiator** (p. 3399) as a **Pointer<Transport>** (p. 2497).

### Exceptions:

*UnsupportedOperationException* if the **WireFormat** (p. 3363) doesn't have a Negotiator.

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2451), and **activemq::wireformat::stomp::StompWireFormat** (p. 3072).

**6.729.3.2** virtual `int activemq::wireformat::WireFormat::getVersion ()` const [pure virtual]

Get the Version.

### Returns:

the version of the wire format

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2453), and **activemq::wireformat::stomp::StompWireFormat** (p. 3072).

**6.729.3.3** virtual `bool activemq::wireformat::WireFormat::hasNegotiator ()` const [pure virtual]

Returns true if this **WireFormat** (p. 3363) has a Negotiator that needs to wrap the Transport that uses it.

**Returns:**

true if the **WireFormat** (p. 3363) provides a Negotiator.

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2453), and **activemq::wireformat::stomp::StompWireFormat** (p. 3072).

#### 6.729.3.4 virtual bool activemq::wireformat::WireFormat::inReceive () const [pure virtual]

Indicates if the WireFormat object is in the process of receiving a message. This is useful for monitoring inactivity and the **WireFormat** (p. 3363) is processing a large message which takes longer than some configured timeout to unmarshal, the inactivity monitor can query the **WireFormat** (p. 3363) instance to determine if its busy or not and not mark the connection as inactive if so.

**Returns:**

true if the **WireFormat** (p. 3363) object is unmarshaling a message.

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2453), and **activemq::wireformat::stomp::StompWireFormat** (p. 3073).

#### 6.729.3.5 virtual void activemq::wireformat::WireFormat::marshal (const Pointer< commands::Command > & *command*, const activemq::transport::Transport \* *transport*, decaf::io::DataOutputStream \* *out*) throw ( decaf::io::IOException ) [pure virtual]

Stream based marshaling of a Command, this method blocks until the entire Command has been written out to the output stream.

**Parameters:**

*command* The Command to Marshal  
*transport* The Transport that called this method.  
*out* The output stream to write the command to.

**Exceptions:**

*IOException*

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2455), and **activemq::wireformat::stomp::StompWireFormat** (p. 3073).

#### 6.729.3.6 virtual void activemq::wireformat::WireFormat::setVersion (int *version*) [pure virtual]

Set the Version.

**Parameters:**

*version* the version of the wire format

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2457), and **activemq::wireformat::stomp::StompWireFormat** (p. 3073).

**6.729.3.7** virtual Pointer<commands::Command> activemq::wireformat::WireFormat::unmarshal (const activemq::transport::Transport \* *transport*, decaf::io::DataInputStream \* *in*) throw ( decaf::io::IOException ) [pure virtual]

Stream based unmarshaling, blocks on reads on the input stream until a complete command has been read and unmarshaled into the correct form. Returns a Pointer to the newly unmarshaled Command.

**Parameters:**

*transport* - Pointer to the transport that is making this request.

*in* - the input stream to read the command from.

**Returns:**

the newly marshaled Command, caller owns the pointer

**Exceptions:**

*IOException*

Implemented in **activemq::wireformat::openwire::OpenWireFormat** (p. 2459), and **activemq::wireformat::stomp::StompWireFormat** (p. 3073).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/**WireFormat.h**

## 6.730 activemq::wireformat::WireFormatFactory Class Reference

The **WireFormatFactory** (p. 3367) is the interface that all **WireFormatFactory** (p. 3367) classes must extend.

#include <src/main/activemq/wireformat/WireFormatFactory.h> Inheritance diagram for activemq::wireformat::WireFormatFactory:

### Public Member Functions

- virtual **~WireFormatFactory** ()
- virtual **Pointer< WireFormat > createWireFormat** (const **decaf::util::Properties** &properties)=0 throw ( **decaf::lang::exceptions::IllegalStateException** )  
*Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.*

### 6.730.1 Detailed Description

The **WireFormatFactory** (p. 3367) is the interface that all **WireFormatFactory** (p. 3367) classes must extend. The Factory creates a **WireFormat** (p. 3363) Object based on the properties that are set in the passed **Properties** object.

### 6.730.2 Constructor & Destructor Documentation

**6.730.2.1** virtual **activemq::wireformat::WireFormatFactory::~~WireFormatFactory** () [inline, virtual]

### 6.730.3 Member Function Documentation

**6.730.3.1** virtual **Pointer<WireFormat> activemq::wireformat::WireFormatFactory::createWireFormat** (const **decaf::util::Properties** & *properties*) throw ( **decaf::lang::exceptions::IllegalStateException** ) [pure virtual]

Creates a new **WireFormat** (p. 3363) Object passing it a set of properties from which it can obtain any optional settings.

#### Parameters:

*properties* - the **Properties** for this **WireFormat** (p. 3363)

#### Returns:

Pointer to a new instance of a **WireFormat** (p. 3363) object.

Implemented in **activemq::wireformat::openwire::OpenWireFormatFactory** (p. 2460), and **activemq::wireformat::stomp::StompWireFormatFactory** (p. 3075).

The documentation for this class was generated from the following file:

- `src/main/activemq/wireformat/WireFormatFactory.h`

## 6.731 activemq::commands::WireFormatInfo Class Reference

#include <src/main/activemq/commands/WireFormatInfo.h> Inheritance diagram for activemq::commands::WireFormatInfo:

### Public Member Functions

- **WireFormatInfo** ()
- virtual **~WireFormatInfo** ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaler share.*
- virtual **DataStructure** \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const **DataStructure** \*src)  
*Copy the contents of the passed object into this objects members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this **DataStructure** (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const **DataStructure** \*value) const  
*Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual bool **isMarshalAware** () const  
*Indicates that this command is aware of Marshaling, and needs to have its Marshaling methods invoked.*
- virtual **decaf::lang::Pointer**< **commands::Command** > **visit** (**activemq::state::CommandVisitor** \*visitor) throw ( **exceptions::ActiveMQException** )  
*Allows a Visitor to visit this command and return a response to the command based on the command type being visited.*
- int **getVersion** () const  
*Get the current Wireformat Version.*
- void **setVersion** (int version)  
*Set the current Wireformat Version.*
- long long **getMaxInactivityDuration** () const  
*Returns the currently configured Max Inactivity duration.*
- void **setMaxInactivityDuration** (long long maxInactivityDuration)  
*Sets the Max inactivity duration value.*

- long long **getMaxInactivityDurationInitialDelay** () const  
*Returns the currently configured Max Inactivity Initial Delay duration.*
- void **setMaxInactivityDurationInitialDelay** (long long maxInactivityDurationInitialDelay)  
*Sets the Max inactivity initial delay duration value.*
- bool **isStackTraceEnabled** () const  
*Checks if the stackTraceEnabled flag is on.*
- void **setStackTraceEnabled** (bool stackTraceEnabled)  
*Sets if the stackTraceEnabled flag is on.*
- bool **isTcpNoDelayEnabled** () const  
*Checks if the tcpNoDelayEnabled flag is on.*
- void **setTcpNoDelayEnabled** (bool tcpNoDelayEnabled)  
*Sets if the tcpNoDelayEnabled flag is on.*
- bool **isCacheEnabled** () const  
*Checks if the cacheEnabled flag is on.*
- void **setCacheEnabled** (bool cacheEnabled)  
*Sets if the cacheEnabled flag is on.*
- int **getCacheSize** () const  
*Gets the Cache Size setting.*
- void **setCacheSize** (int value)  
*Sets the Cache Size setting.*
- bool **isTightEncodingEnabled** () const  
*Checks if the tightEncodingEnabled flag is on.*
- void **setTightEncodingEnabled** (bool tightEncodingEnabled)  
*Sets if the tightEncodingEnabled flag is on.*
- bool **isSizePrefixDisabled** () const  
*Checks if the sizePrefixDisabled flag is on.*
- void **setSizePrefixDisabled** (bool sizePrefixDisabled)  
*Sets if the sizePrefixDisabled flag is on.*
- const std::vector< unsigned char > &**getMagic** () const  
*Get the Magic field.*
- void **setMagic** (const std::vector< unsigned char > &magic)  
*Sets the value of the magic field.*

- `const std::vector< unsigned char > & getMarshallledProperties () const`  
*Get the `marshallledProperties` field.*
- `void setMarshallledProperties (const std::vector< unsigned char > &marshallledProperties)`  
*Sets the value of the `marshallledProperties` field.*
- `virtual const util::PrimitiveMap & getProperties () const`  
*Gets the Properties for this **Command** (p. 1063).*
- `virtual util::PrimitiveMap & getProperties ()`  
*Gets the Properties for this **Command** (p. 1063).*
- `virtual void setProperties (const util::PrimitiveMap &map)`  
*Sets the Properties for this **Command** (p. 1063).*
- `bool isValid () const`  
*Determines if we think this is a Valid **WireFormatInfo** (p. 3369) command.*
- `virtual bool isWireFormatInfo () const`
- `virtual void beforeMarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Handles the marshaling of the objects properties into the internal byte array before the object is marshalled to the wire.*
- `virtual void afterUnmarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )`  
*Called after unmarshaling is started to cleanup the object being unmarshaled.*

## Static Public Attributes

- `static const unsigned char ID_WIREFORMATINFO = 1`

## 6.731.1 Constructor & Destructor Documentation

- 6.731.1.1 `activemq::commands::WireFormatInfo::WireFormatInfo ()`
- 6.731.1.2 `virtual activemq::commands::WireFormatInfo::~~WireFormatInfo ()`  
[virtual]

## 6.731.2 Member Function Documentation

- 6.731.2.1 `virtual void activemq::commands::WireFormatInfo::afterUnmarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException )` [virtual]

Called after unmarshaling is started to cleanup the object being unmarshaled.

### Parameters:

*wireFormat* - the wireformat object to control unmarshaling



Reimplemented from `activemq::commands::BaseDataStructure` (p. 716).

**6.731.2.2** `virtual void activemq::commands::WireFormatInfo::beforeMarshal (wireformat::WireFormat *wireFormat AMQCPP_UNUSED) throw ( decaf::io::IOException ) [virtual]`

Handles the marshaling of the objects properties into the internal byte array before the object is marshalled to the wire.

**Parameters:**

*wireFormat* - the wire formatting controller

Reimplemented from `activemq::commands::BaseDataStructure` (p. 716).

**6.731.2.3** `virtual DataStructure* activemq::commands::WireFormatInfo::cloneDataStructure () const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

**Returns:**

new copy of this object.

Implements `activemq::commands::DataStructure` (p. 1461).

**6.731.2.4** `virtual void activemq::commands::WireFormatInfo::copyDataStructure (const DataStructure *src) [virtual]`

Copy the contents of the passed object into this objects members, overwriting any existing data.

**Returns:**

src - Source Object

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.731.2.5** `virtual bool activemq::commands::WireFormatInfo::equals (const DataStructure *value) const [virtual]`

Compares the `DataStructure` (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::BaseCommand` (p. 651).

**6.731.2.6** `int activemq::commands::WireFormatInfo::getCacheSize () const`

Gets the Cache Size setting.

**Returns:**

currently set cache size.

**6.731.2.7** `virtual unsigned char activemq::commands::WireFormatInfo::getDataStructureType () const [virtual]`

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataSet** (p. 1461) type copy.

Implements **activemq::commands::DataSet** (p. 1464).

**6.731.2.8** `const std::vector<unsigned char>& activemq::commands::WireFormatInfo::getMagic () const [inline]`

Get the Magic field.

**Returns:**

const reference to a `std::vector<char>`

**6.731.2.9** `const std::vector<unsigned char>& activemq::commands::WireFormatInfo::getMarshaledProperties () const [inline]`

Get the marshalledProperties field.

**Returns:**

const reference to a `std::vector<char>`

**6.731.2.10** `long long activemq::commands::WireFormatInfo::getMaxInactivityDuration () const`

Returns the currently configured Max Inactivity duration.

**Returns:**

the set inactivity duration value.

**6.731.2.11** `long long activemq::commands::WireFormatInfo::getMaxInactivityDurationInitialDelay () const`

Returns the currently configured Max Inactivity Initial Delay duration.

**Returns:**

the set inactivity duration initial delay value.

**6.731.2.12** `virtual util::PrimitiveMap& activemq::commands::WireFormatInfo::getProperties () [inline, virtual]`

Gets the Properties for this **Command** (p. 1063).

**Returns:**

the Properties object for this **Command** (p. 1063).

**6.731.2.13** `virtual const util::PrimitiveMap& activemq::commands::WireFormatInfo::getProperties () const [inline, virtual]`

Gets the Properties for this **Command** (p. 1063).

**Returns:**

the Properties object for this **Command** (p. 1063).

**6.731.2.14** `int activemq::commands::WireFormatInfo::getVersion () const [inline]`

Get the current Wireformat Version.

**Returns:**

int that identifies the version

**6.731.2.15** `bool activemq::commands::WireFormatInfo::isCacheEnabled () const`

Checks if the cacheEnabled flag is on.

**Returns:**

true if the flag is on.

**6.731.2.16** `virtual bool activemq::commands::WireFormatInfo::isMarshalAware () const [inline, virtual]`

Indicates that this command is aware of Marshaling, and needs to have its Marshaling methods invoked.

**Returns:**

boolean indicating desire to be in marshaling stages

Reimplemented from **activemq::commands::BaseDataStructure** (p. 717).

**6.731.2.17**    **bool** **activemq::commands::WireFormatInfo::isSizePrefixDisabled** ()  
                 **const**

Checks if the sizePrefixDisabled flag is on.

**Returns:**

true if the flag is on.

**6.731.2.18**    **bool** **activemq::commands::WireFormatInfo::isStackTraceEnabled** ()  
                 **const**

Checks if the stackTraceEnabled flag is on.

**Returns:**

true if the flag is on.

**6.731.2.19**    **bool** **activemq::commands::WireFormatInfo::isTcpNoDelayEnabled** ()  
                 **const**

Checks if the tcpNoDelayEnabled flag is on.

**Returns:**

true if the flag is on.

**6.731.2.20**    **bool** **activemq::commands::WireFormatInfo::isTightEncodingEnabled** ()  
                 **const**

Checks if the tightEncodingEnabled flag is on.

**Returns:**

true if the flag is on.

**6.731.2.21**    **bool** **activemq::commands::WireFormatInfo::isValid** () **const**

Determines if we think this is a Valid **WireFormatInfo** (p. 3369) command.

**Returns:**

true if its valid.

**6.731.2.22**    `virtual bool activemq::commands::WireFormatInfo::isWireFormatInfo ()`  
                 `const [inline, virtual]`

**Returns:**

answers true to the isWireFormatInfo query

Reimplemented from `activemq::commands::BaseCommand` (p. 655).

**6.731.2.23**    `void activemq::commands::WireFormatInfo::setCacheEnabled (bool`  
                 `cacheEnabled)`

Sets if the cacheEnabled flag is on.

**Parameters:**

*cacheEnabled* - true to turn flag is on

**6.731.2.24**    `void activemq::commands::WireFormatInfo::setCacheSize (int value)`

Sets the Cache Size setting.

**Parameters:**

*value* - value to set to the cache size.

**6.731.2.25**    `void activemq::commands::WireFormatInfo::setMagic (const`  
                 `std::vector< unsigned char > & magic) [inline]`

Sets the value of the magic field.

**Parameters:**

*magic* - const std::vector<char>

**6.731.2.26**    `void activemq::commands::WireFormatInfo::setMarshaledProperties`  
                 `(const std::vector< unsigned char > & marshalledProperties) [inline]`

Sets the value of the marshalledProperties field.

**Parameters:**

*marshalledProperties* The Byte Array vector that contains the marshaled form of the Message (p. 2145) properties, this is the data sent over the wire.

**6.731.2.27**    `void activemq::commands::WireFormatInfo::setMaxInactivityDuration`  
                 `(long long maxInactivityDuration)`

Sets the Max inactivity duration value.

**Parameters:**

*maxInactivityDuration* - max time a client can be inactive.

**6.731.2.28** void activemq::commands::WireFormatInfo::setMaxInactivityDurationInitialDelay (long long *maxInactivityDurationInitialDelay*)

Sets the Max inactivity initial delay duration value.

**Parameters:**

*maxInactivityDurationInitialDelay* - time before the inactivity delay is checked.

**6.731.2.29** virtual void activemq::commands::WireFormatInfo::setProperties (const util::PrimitiveMap & *map*) [inline, virtual]

Sets the Properties for this **Command** (p. 1063).

**Parameters:**

*map* - PrimitiveMap to copy

**6.731.2.30** void activemq::commands::WireFormatInfo::setSizePrefixDisabled (bool *sizePrefixDisabled*)

Sets if the sizePrefixDisabled flag is on.

**Parameters:**

*sizePrefixDisabled* - true to turn flag is on

**6.731.2.31** void activemq::commands::WireFormatInfo::setStackTraceEnabled (bool *stackTraceEnabled*)

Sets if the stackTraceEnabled flag is on.

**Parameters:**

*stackTraceEnabled* - ture to turn flag is on

**6.731.2.32** void activemq::commands::WireFormatInfo::setTcpNoDelayEnabled (bool *tcpNoDelayEnabled*)

Sets if the tcpNoDelayEnabled flag is on.

**Parameters:**

*tcpNoDelayEnabled* - ture to turn flag is on

**6.731.2.33** void activemq::commands::WireFormatInfo::setTightEncodingEnabled (bool *tightEncodingEnabled*)

Sets if the tightEncodingEnabled flag is on.

**Parameters:**

*tightEncodingEnabled* - true to turn flag is on

**6.731.2.34** `void activemq::commands::WireFormatInfo::setVersion (int version)`  
[inline]

Set the current Wireformat Version.

**Parameters:**

*version* - int that identifies the version

**6.731.2.35** `virtual std::string activemq::commands::WireFormatInfo::toString ()`  
`const` [virtual]

Returns a string containing the information for this **DataStructure** (p.1461) such as its type and value of its elements.

**Returns:**

formatted string useful for debugging.

Reimplemented from **activemq::commands::BaseCommand** (p. 655).

**6.731.2.36** `virtual decaf::lang::Pointer<commands::Command>`  
`activemq::commands::WireFormatInfo::visit (ac-`  
`tivemq::state::CommandVisitor * visitor) throw (`  
`exceptions::ActiveMQException )` [virtual]

Allows a Visitor to visit this command and return a response to the command based on the command type being visited. The command will call the proper processXXX method in the visitor.

**Returns:**

a **Response** (p. 2781) to the visitor being called or NULL if no response.

Implements **activemq::commands::Command** (p.1067).

## 6.731.3 Field Documentation

**6.731.3.1** `const unsigned char activemq::commands::WireFormatInfo::ID _-`  
`WIREFORMATINFO = 1` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/WireFormatInfo.h`

## 6.732 activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3379).

#include <src/main/activemq/wireformat/openwire/marshal/v2/WireFormatInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller:

### Public Member Functions

- **WireFormatInfoMarshaller** ()
- virtual **~WireFormatInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.732.1 Detailed Description

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3379). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.732.2 Constructor & Destructor Documentation

**6.732.2.1** `activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::WireFormatInfoMarshaller()` [inline]

**6.732.2.2** `virtual activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::~~WireFormatInfoMarshaller()` [inline, virtual]

## 6.732.3 Member Function Documentation

**6.732.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.732.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.732.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.732.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.732.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.732.3.6** virtual void activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.732.3.7** virtual void activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/**WireFormatInfoMarshaller.h**

## 6.733 activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3383).

#include <src/main/activemq/wireformat/openwire/marshal/v5/WireFormatInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller:

### Public Member Functions

- **WireFormatInfoMarshaller** ()
- virtual **~WireFormatInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**, **utils::BooleanStream \*bs**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataInputStream \*dataIn**) throw ( **decaf::io::IOException** )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (**OpenWireFormat \*wireFormat**, **commands::DataStructure \*dataStructure**, **decaf::io::DataOutputStream \*dataOut**) throw ( **decaf::io::IOException** )  
*Write a object instance to data output stream.*

### 6.733.1 Detailed Description

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3383). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.733.2 Constructor & Destructor Documentation

**6.733.2.1** `activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::WireFormatInfoMarshaller()` [inline]

**6.733.2.2** `virtual activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::~~WireFormatInfoMarshaller()` [inline, virtual]

## 6.733.3 Member Function Documentation

**6.733.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.733.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.733.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.733.3.4** virtual void `activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.733.3.5** virtual int `activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.733.3.6** virtual void activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.733.3.7** virtual void activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/**WireFormatInfoMarshaller.h**

## 6.734 activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3387).

#include <src/main/activemq/wireformat/openwire/marshal/v1/WireFormatInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller:

### Public Member Functions

- **WireFormatInfoMarshaller** ()
- virtual **~WireFormatInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.734.1 Detailed Description

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3387). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.734.2 Constructor & Destructor Documentation

**6.734.2.1** `activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::WireFormatInfoMarshaller()` [inline]

**6.734.2.2** `virtual activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::~~WireFormatInfoMarshaller()` [inline, virtual]

## 6.734.3 Member Function Documentation

**6.734.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.734.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.734.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.734.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.734.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.734.3.6** virtual void activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.734.3.7** virtual void activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/**WireFormatInfoMarshaller.h**

## 6.735 activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3391).

#include <src/main/activemq/wireformat/openwire/marshal/v4/WireFormatInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller:

### Public Member Functions

- **WireFormatInfoMarshaller** ()
- virtual **~WireFormatInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.735.1 Detailed Description

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3391). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.735.2 Constructor & Destructor Documentation

**6.735.2.1** `activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::WireFormatInfoMarshaller()` [inline]

**6.735.2.2** `virtual activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::~~WireFormatInfoMarshaller()` [inline, virtual]

## 6.735.3 Member Function Documentation

**6.735.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.735.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.735.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.735.3.4** virtual void `activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.735.3.5** virtual int `activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::tightMarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.735.3.6** virtual void activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.735.3.7** virtual void activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/**WireFormatInfoMarshaller.h**

## 6.736 activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller Class Reference

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3395).

#include <src/main/activemq/wireformat/openwire/marshal/v3/WireFormatInfoMarshaller.h>Inheritance diagram for activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller:

### Public Member Functions

- **WireFormatInfoMarshaller** ()
- virtual **~WireFormatInfoMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.736.1 Detailed Description

Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3395). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.736.2 Constructor & Destructor Documentation

**6.736.2.1** `activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::WireFormatInfoMarshaller()` [inline]

**6.736.2.2** `virtual activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::~~WireFormatInfoMarshaller()` [inline, virtual]

## 6.736.3 Member Function Documentation

**6.736.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::createObject()` const [virtual]

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.736.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::getDataStructureType()` const [virtual]

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.736.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` [virtual]

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1430).

**6.736.3.4** virtual void `activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::looseUnmarshal` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `decaf::io::DataInputStream * dataIn`) throw ( `decaf::io::IOException` ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1436).

**6.736.3.5** virtual int `activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::tightMarshal1` (`OpenWireFormat * wireFormat`, `commands::DataStructure * dataStructure`, `utils::BooleanStream * bs`) throw ( `decaf::io::IOException` ) [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1442).

**6.736.3.6** virtual void activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1448).

**6.736.3.7** virtual void activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Implements **activemq::wireformat::openwire::marshal::DataStreamMarshaller** (p. 1454).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/**WireFormatInfoMarshaller.h**

## 6.737 activemq::wireformat::WireFormatNegotiator Class Reference

Defines a **WireFormatNegotiator** (p. 3399) which allows a **WireFormat** (p. 3363) to.

#include <src/main/activemq/wireformat/WireFormatNegotiator.h>Inheritance diagram for activemq::wireformat::WireFormatNegotiator:

### Public Member Functions

- **WireFormatNegotiator** (const **Pointer**< **transport::Transport** > &next)  
*Constructor.*
- virtual ~**WireFormatNegotiator** ()

### 6.737.1 Detailed Description

Defines a **WireFormatNegotiator** (p. 3399) which allows a **WireFormat** (p. 3363) to.

### 6.737.2 Constructor & Destructor Documentation

#### 6.737.2.1 activemq::wireformat::WireFormatNegotiator::WireFormatNegotiator (const **Pointer**< **transport::Transport** > & *next*) [inline]

Constructor.

#### Parameters:

*next* - the next **Transport** in the chain

#### 6.737.2.2 virtual activemq::wireformat::WireFormatNegotiator::~~WireFormatNegotiator () [inline, virtual]

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/**WireFormatNegotiator.h**

## 6.738 activemq::wireformat::WireFormatRegistry Class Reference

Registry of all **WireFormat** (p. 3363) Factories that are available to the client at runtime.

```
#include <src/main/activemq/wireformat/WireFormatRegistry.h>
```

### Public Member Functions

- virtual **~WireFormatRegistry** ()
- **WireFormatFactory** \* **findFactory** (const std::string &name) const throw ( decaf::lang::exceptions::NoSuchElementException )

*Gets a Registered **WireFormatFactory** (p. 3367) from the Registry and returns it if there is not a registered format factory with the given name an exception is thrown.*

- void **registerFactory** (const std::string &name, **WireFormatFactory** \*factory) throw ( decaf::lang::exceptions::IllegalArgumentException, decaf::lang::exceptions::NullPointerException )

*Registers a new **WireFormatFactory** (p. 3367) with this Registry.*

- void **unregisterFactory** (const std::string &name)

*Unregisters the Factory with the given name and deletes that instance of the Factory.*

- std::vector< std::string > **getWireFormatNames** () const

*Retrieves a list of the names of all the Registered WireFormat's in this Registry.*

### Static Public Member Functions

- static **WireFormatRegistry** & **getInstance** ()

*Gets the single instance of the **WireFormatRegistry** (p. 3400).*

#### 6.738.1 Detailed Description

Registry of all **WireFormat** (p. 3363) Factories that are available to the client at runtime. New WireFormat's must have a factory registered here before a connection attempt is made.

Since:

3.0

## 6.738.2 Constructor & Destructor Documentation

**6.738.2.1**   `virtual`  
`activemq::wireformat::WireFormatRegistry::~~WireFormatRegistry ()`  
`[virtual]`

## 6.738.3 Member Function Documentation

**6.738.3.1**   `WireFormatFactory* ac-`  
`tivemq::wireformat::WireFormatRegistry::findFactory (const std::string`  
`& name) const throw ( decaf::lang::exceptions::NoSuchElementException`  
`)`

Gets a Registered **WireFormatFactory** (p. 3367) from the Registry and returns it if there is not a registered format factory with the given name an exception is thrown.

### Parameters:

*name* The name of the Factory to find in the Registry.

### Returns:

the Factory registered under the given name.

### Exceptions:

*NoSuchElementException* if no factory is registered with that name.

**6.738.3.2**   `static WireFormatRegistry& ac-`  
`tivemq::wireformat::WireFormatRegistry::getInstance ()`  
`[static]`

Gets the single instance of the **WireFormatRegistry** (p. 3400).

### Returns:

reference to the single instance of this Registry

**6.738.3.3**   `std::vector<std::string> ac-`  
`tivemq::wireformat::WireFormatRegistry::getWireFormatNames ()`  
`const`

Retrieves a list of the names of all the Registered WireFormat's in this Registry.

### Returns:

stl vector of strings with all the **WireFormat** (p. 3363) names registered.

**6.738.3.4** void activemq::wireformat::WireFormatRegistry::registerFactory  
(const std::string & *name*, WireFormatFactory \* *factory*)  
throw ( decaf::lang::exceptions::IllegalArgumentException,  
decaf::lang::exceptions::NullPointerException )

Registers a new **WireFormatFactory** (p. 3367) with this Registry. If a Factory with the given name is already registered it is overwritten with the new one. Once a factory is added to the Registry its lifetime is controlled by the Registry, it will be deleted once the Registry has been deleted.

**Parameters:**

*name* The name of the new Factory to register.  
*factory* The new Factory to add to the Registry.

**Exceptions:**

*IllegalArgumentException* is name is the empty string.  
*NullPointerException* if the Factory is Null.

**6.738.3.5** void activemq::wireformat::WireFormatRegistry::unregisterFactory  
(const std::string & *name*)

Unregisters the Factory with the given name and deletes that instance of the Factory.

**Parameters:**

*name* Name of the Factory to unregister and destroy

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/**WireFormatRegistry.h**

## 6.739 activemq::transport::inactivity::WriteChecker Class Reference

Runnable class used by the {.

#include <src/main/activemq/transport/inactivity/WriteChecker.h>Inheritance diagram for activemq::transport::inactivity::WriteChecker:

### Public Member Functions

- **WriteChecker** (**InactivityMonitor** \*parent)
- virtual ~**WriteChecker** ()
- virtual void **run** ()

*Run method - called by the Thread class in the context of the thread.*

### 6.739.1 Detailed Description

Runnable class used by the {.

See also:

**InactivityMonitor** (p. 1733)} to make periodic writes to the underlying **transport** (p. 79) if no other write activity is going on in order to more quickly detect failures of the connection to the broker.

Since:

3.1.0

### 6.739.2 Constructor & Destructor Documentation

**6.739.2.1** **activemq::transport::inactivity::WriteChecker::WriteChecker** (**InactivityMonitor** \* *parent*)

**6.739.2.2** **virtual activemq::transport::inactivity::WriteChecker::~~WriteChecker** ()  
[virtual]

### 6.739.3 Member Function Documentation

**6.739.3.1** **virtual void activemq::transport::inactivity::WriteChecker::run** ()  
[virtual]

Run method - called by the Thread class in the context of the thread.

Implements **decaf::lang::Runnable** (p. 2816).

The documentation for this class was generated from the following file:

- src/main/activemq/transport/inactivity/**WriteChecker.h**



## 6.740 decaf::io::Writer Class Reference

```
#include <src/main/decaf/io/Writer.h>
```

### Public Member Functions

- virtual `~Writer ()`
- virtual void `setOutputStream (OutputStream *os)=0`  
*Sets the target output stream.*
- virtual `OutputStream * getOutputStream ()=0`  
*Gets the target output stream.*
- virtual void `write (const unsigned char *buffer, std::size_t count)=0` throw ( `IOException`, `lang::exceptions::NullPointerException` )  
*Writes a byte array to the output stream.*
- virtual void `writeByte (unsigned char v)=0` throw ( `IOException` )  
*Writes a byte to the output stream.*

### 6.740.1 Constructor & Destructor Documentation

6.740.1.1 virtual `decaf::io::Writer::~~Writer ()` [inline, virtual]

### 6.740.2 Member Function Documentation

6.740.2.1 virtual `OutputStream* decaf::io::Writer::getOutputStream ()` [pure virtual]

Gets the target output stream.

#### Returns:

the output stream currently being used

6.740.2.2 virtual void `decaf::io::Writer::setOutputStream (OutputStream * os)` [pure virtual]

Sets the target output stream.

#### Parameters:

*os* The provided Outputstream to use to write to.

6.740.2.3 virtual void `decaf::io::Writer::write (const unsigned char * buffer, std::size_t count)` throw ( `IOException`, `lang::exceptions::NullPointerException` ) [pure virtual]

Writes a byte array to the output stream.

**Parameters:**

*buffer* a byte array

*count* the number of bytes in the array to write.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

#### 6.740.2.4 virtual void decaf::io::Writer::writeByte (unsigned char *v*) throw (IOException) [pure virtual]

Writes a byte to the output stream.

**Parameters:**

*v* The value to be written.

**Exceptions:**

*IOException* (p. 1820) thrown if an error occurs.

The documentation for this class was generated from the following file:

- src/main/decaf/io/**Writer.h**

## 6.741 decaf::security::auth::x500::X500Principal Class Reference

#include <src/main/decaf/security/auth/x500/X500Principal.h> Inheritance diagram for decaf::security::auth::x500::X500Principal:

### Public Member Functions

- virtual `~X500Principal ()`
- virtual `std::string getName () const =0`  
*Provides the name of this principal.*
- virtual `void getEncoded (std::vector< unsigned char > &output) const =0`
- virtual `int hashCode () const =0`

### 6.741.1 Constructor & Destructor Documentation

**6.741.1.1** virtual `decaf::security::auth::x500::X500Principal::~X500Principal ()`  
[inline, virtual]

### 6.741.2 Member Function Documentation

**6.741.2.1** virtual `void decaf::security::auth::x500::X500Principal::getEncoded (std::vector< unsigned char > & output) const` [pure virtual]

**6.741.2.2** virtual `std::string decaf::security::auth::x500::X500Principal::getName () const` [pure virtual]

Provides the name of this principal.

#### Returns:

the name of this principal.

Implements `decaf::security::Principal` (p. 2569).

**6.741.2.3** virtual `int decaf::security::auth::x500::X500Principal::hashCode () const`  
[pure virtual]

The documentation for this class was generated from the following file:

- `src/main/decaf/security/auth/x500/X500Principal.h`

## 6.742 decaf::security::cert::X509Certificate Class Reference

Base interface for all identity certificates.

#include <src/main/decaf/security/cert/X509Certificate.h> Inheritance diagram for decaf::security::cert::X509Certificate:

### Public Member Functions

- virtual `~X509Certificate ()`
- virtual void `checkValidity ()` const =0 throw (CertificateExpiredException, CertificateNotYetValidException)
- virtual void `checkValidity (const decaf::util::Date &date)` const =0 throw (CertificateExpiredException, CertificateNotYetValidException)
- virtual int `getBasicConstraints ()` const =0
- virtual void `getIssuerUniqueID (std::vector< bool > &output)` const =0
- virtual const X500Principal \* `getIssuerX500Principal ()` const =0
- virtual void `getKeyUsage (std::vector< unsigned char > &output)` const =0
- virtual Date `getNotAfter ()` const =0
- virtual Date `getNotBefore ()` const =0
- virtual std::string `getSigAlgName ()` const =0
- virtual std::string `getSigAlgOID ()` const =0
- virtual void `getSigAlgParams (std::vector< unsigned char > &output)` const =0
- virtual void `getSignature (std::vector< unsigned char > &output)` const =0
- virtual void `getSubjectUniqueID (std::vector< bool > &output)` const =0
- virtual const X500Principal \* `getSubjectX500Principal ()` const =0
- virtual void `getTBSCertificate (std::vector< unsigned char > &output)` const =0 throw ( CertificateEncodingException )
- virtual int `getVersion ()` const =0

### 6.742.1 Detailed Description

Base interface for all identity certificates.

### 6.742.2 Constructor & Destructor Documentation

- 6.742.2.1 virtual decaf::security::cert::X509Certificate::~X509Certificate ()  
[inline, virtual]

### 6.742.3 Member Function Documentation

- 6.742.3.1 virtual void decaf::security::cert::X509Certificate::checkValidity (const decaf::util::Date & *date*) const throw (CertificateExpiredException, CertificateNotYetValidException) [pure virtual]

Implemented in decaf::security\_provider::unix::openssl::OpenSSLX509Certificate (p. 2443).

**6.742.3.2** `virtual void decaf::security::cert::X509Certificate::checkValidity () const  
throw (CertificateExpiredException, CertificateNotYetValidException)  
[pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2443).

**6.742.3.3** `virtual int decaf::security::cert::X509Certificate::getBasicConstraints ()  
const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.4** `virtual void decaf::security::cert::X509Certificate::getIssuerUniqueID  
(std::vector< bool > & output) const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.5** `virtual const X500Principal* de-  
caf::security::cert::X509Certificate::getIssuerX500Principal  
() const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.6** `virtual void decaf::security::cert::X509Certificate::getKeyUsage  
(std::vector< unsigned char > & output) const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.7** `virtual Date decaf::security::cert::X509Certificate::getNotAfter () const  
[pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.8** `virtual Date decaf::security::cert::X509Certificate::getNotBefore () const  
[pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2444).

**6.742.3.9** `virtual std::string decaf::security::cert::X509Certificate::getSigAlgName  
() const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2445).

**6.742.3.10** `virtual std::string decaf::security::cert::X509Certificate::getSigAlgOID  
() const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2445).

**6.742.3.11** `virtual void decaf::security::cert::X509Certificate::getSigAlgParams  
(std::vector< unsigned char > & output) const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2445).

**6.742.3.12** `virtual void decaf::security::cert::X509Certificate::getSignature  
(std::vector< unsigned char > & output) const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2445).

**6.742.3.13** `virtual void decaf::security::cert::X509Certificate::getSubjectUniqueID  
(std::vector< bool > & output) const [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2446).

**6.742.3.14** `virtual const X500Principal* de-  
caf::security::cert::X509Certificate::getSubjectX500Principal () const  
[pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2446).

**6.742.3.15** `virtual void decaf::security::cert::X509Certificate::getTBSCertificate  
(std::vector< unsigned char > & output) const throw (   
CertificateEncodingException ) [pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2446).

**6.742.3.16** `virtual int decaf::security::cert::X509Certificate::getVersion () const  
[pure virtual]`

Implemented in `decaf::security_provider::unix::openssl::OpenSSLX509Certificate`  
(p. 2446).

The documentation for this class was generated from the following file:

- `src/main/decaf/security/cert/X509Certificate.h`

## 6.743 activemq::commands::XATransactionId Class Reference

#include <src/main/activemq/commands/XATransactionId.h> Inheritance diagram for activemq::commands::XATransactionId:

### Public Types

- typedef decaf::lang::PointerComparator< XATransactionId > COMPARATOR

### Public Member Functions

- XATransactionId ()
- XATransactionId (const XATransactionId &other)
- virtual ~XATransactionId ()
- virtual unsigned char **getDataStructureType** () const  
*Get the unique identifier that this object and its own Marshaller share.*
- virtual XATransactionId \* **cloneDataStructure** () const  
*Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.*
- virtual void **copyDataStructure** (const DataStructure \*src)  
*Copy the contents of the passed object into this object's members, overwriting any existing data.*
- virtual std::string **toString** () const  
*Returns a string containing the information for this DataStructure (p. 1461) such as its type and value of its elements.*
- virtual bool **equals** (const DataStructure \*value) const  
*Compares the DataStructure (p. 1461) passed in to this one, and returns if they are equivalent.*
- virtual int **getFormatId** () const
- virtual void **setFormatId** (int formatId)
- virtual const std::vector< unsigned char > & **getGlobalTransactionId** () const
- virtual std::vector< unsigned char > & **getGlobalTransactionId** ()
- virtual void **setGlobalTransactionId** (const std::vector< unsigned char > &globalTransactionId)
- virtual const std::vector< unsigned char > & **getBranchQualifier** () const
- virtual std::vector< unsigned char > & **getBranchQualifier** ()
- virtual void **setBranchQualifier** (const std::vector< unsigned char > &branchQualifier)
- virtual int **compareTo** (const XATransactionId &value) const
- virtual bool **equals** (const XATransactionId &value) const
- virtual bool **operator==** (const XATransactionId &value) const
- virtual bool **operator<** (const XATransactionId &value) const
- XATransactionId & **operator=** (const XATransactionId &other)

## Static Public Attributes

- static const unsigned char **ID\_XATRANSACTIONID** = 112

## Protected Attributes

- int **formatId**
- std::vector< unsigned char > **globalTransactionId**
- std::vector< unsigned char > **branchQualifier**

### 6.743.1 Member Typedef Documentation

- 6.743.1.1**    `typedef decaf::lang::PointerComparator<XATransactionId>  
activemq::commands::XATransactionId::COMPARATOR`

Reimplemented from `activemq::commands::TransactionId` (p. 3217).

### 6.743.2 Constructor & Destructor Documentation

- 6.743.2.1**    `activemq::commands::XATransactionId::XATransactionId ()`
- 6.743.2.2**    `activemq::commands::XATransactionId::XATransactionId (const  
XATransactionId & other)`
- 6.743.2.3**    `virtual activemq::commands::XATransactionId::~~XATransactionId ()  
[virtual]`

### 6.743.3 Member Function Documentation

- 6.743.3.1**    `virtual XATransactionId* ac-  
tivemq::commands::XATransactionId::cloneDataStructure  
(const) const [virtual]`

Clone this object and return a new instance that the caller now owns, this will be an exact copy of this one.

#### Returns:

new copy of this object.

Reimplemented from `activemq::commands::TransactionId` (p. 3218).

- 6.743.3.2**    `virtual int activemq::commands::XATransactionId::compareTo (const  
XATransactionId & value) const [virtual]`
- 6.743.3.3**    `virtual void activemq::commands::XATransactionId::copyDataStructure  
(const DataStructure * src) [virtual]`

Copy the contents of the passed object into this object's members, overwriting any existing data.



**Parameters:**

*src* - Source Object

Reimplemented from `activemq::commands::TransactionId` (p. 3218).

**6.743.3.4** `virtual bool activemq::commands::XATransactionId::equals (const XATransactionId & value) const` [virtual]

**6.743.3.5** `virtual bool activemq::commands::XATransactionId::equals (const DataStructure * value) const` [virtual]

Compares the **DataStructure** (p. 1461) passed in to this one, and returns if they are equivalent. Equivalent here means that they are of the same type, and that each element of the objects are the same.

**Returns:**

true if DataStructure's are Equal.

Reimplemented from `activemq::commands::TransactionId` (p. 3218).

**6.743.3.6** `virtual std::vector<unsigned char>& activemq::commands::XATransactionId::getBranchQualifier ()` [virtual]

**6.743.3.7** `virtual const std::vector<unsigned char>& activemq::commands::XATransactionId::getBranchQualifier () const` [virtual]

**6.743.3.8** `virtual unsigned char activemq::commands::XATransactionId::getDataStructureType () const` [virtual]

Get the unique identifier that this object and its own Marshaler share.

**Returns:**

new **DataStructure** (p. 1461) type copy.

Reimplemented from `activemq::commands::TransactionId` (p. 3219).

- |            |   |
|------------|---|
| 6.743.3.9  | virtual int activemq::commands::XATransactionId::getFormatId () const<br>[virtual]  |
| 6.743.3.10 | virtual std::vector<unsigned char>& ac-<br>tivemq::commands::XATransactionId::getGlobalTransactionId ()<br>[virtual]  |
| 6.743.3.11 | virtual const std::vector<unsigned char>& ac-<br>tivemq::commands::XATransactionId::getGlobalTransactionId () const<br>[virtual]                              |
| 6.743.3.12 | virtual bool activemq::commands::XATransactionId::operator< (const<br>XATransactionId & <i>value</i> ) const [virtual]  |
| 6.743.3.13 | XATransactionId& activemq::commands::XATransactionId::operator=<br>(const XATransactionId & <i>other</i> )  |
| 6.743.3.14 | virtual bool activemq::commands::XATransactionId::operator== (const<br>XATransactionId & <i>value</i> ) const [virtual]                                       |
| 6.743.3.15 | virtual void activemq::commands::XATransactionId::setBranchQualifier<br>(const std::vector< unsigned char > & <i>branchQualifier</i> ) [virtual]              |
| 6.743.3.16 | virtual void activemq::commands::XATransactionId::setFormatId (int<br><i>formatId</i> ) [virtual]   |
| 6.743.3.17 | virtual void ac-<br>tivemq::commands::XATransactionId::setGlobalTransactionId (const<br>std::vector< unsigned char > & <i>globalTransactionId</i> ) [virtual] |
| 6.743.3.18 | virtual std::string activemq::commands::XATransactionId::toString ()<br>const [virtual]   |

### 6.743.4 Field Documentation

- 6.743.4.1 `std::vector<unsigned char> activemq::commands::XATransactionId::branchQualifier` [protected]
- 6.743.4.2 `int activemq::commands::XATransactionId::formatId` [protected]
- 6.743.4.3 `std::vector<unsigned char> activemq::commands::XATransactionId::globalTransactionId` [protected]
- 6.743.4.4 `const unsigned char activemq::commands::XATransactionId::ID_XATRANSACTIONID = 112` [static]

The documentation for this class was generated from the following file:

- `src/main/activemq/commands/XATransactionId.h`

## 6.744 activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3415).

#include <src/main/activemq/wireformat/openwire/marshal/v2/XATransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller:

### Public Member Functions

- **XATransactionIdMarshaller** ()
- virtual **~XATransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.744.1 Detailed Description

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3415). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.744.2 Constructor & Destructor Documentation

**6.744.2.1** `activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::XATransactionIdMarshaller()` `[inline]`

**6.744.2.2** `virtual activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::~~XATransactionIdMarshaller()` `[inline, virtual]`

## 6.744.3 Member Function Documentation

**6.744.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.744.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.744.3.3** `virtual void activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller` (p. 3221).

**6.744.3.4** `virtual void activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller` (p. 3221).

**6.744.3.5** `virtual int activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller` (p. 3222).

**6.744.3.6** virtual void activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3222).

**6.744.3.7** virtual void activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller** (p. 3223).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v2/XATransactionIdMarshaller.h

## 6.745 activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3419).

#include <src/main/activemq/wireformat/openwire/marshal/v3/XATransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller:

### Public Member Functions

- **XATransactionIdMarshaller** ()
- virtual **~XATransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.745.1 Detailed Description

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3419). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.745.2 Constructor & Destructor Documentation

**6.745.2.1** `activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::XATransactionIdMarshaller()` `[inline]`

**6.745.2.2** `virtual activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::~~XATransactionIdMarshaller()` `[inline, virtual]`

## 6.745.3 Member Function Documentation

**6.745.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.745.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.745.3.3** `virtual void activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3237).

**6.745.3.4** `virtual void activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3237).

**6.745.3.5** `virtual int activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller` (p. 3238).

**6.745.3.6** virtual void activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller** (p. 3238).

**6.745.3.7** virtual void activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshal an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller** (p. 3239).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v3/XATransactionIdMarshaller.h

## 6.746 activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3423).

#include <src/main/activemq/wireformat/openwire/marshal/v4/XATransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller:

### Public Member Functions

- **XATransactionIdMarshaller** ()
- virtual **~XATransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.746.1 Detailed Description

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3423). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.746.2 Constructor & Destructor Documentation

**6.746.2.1** `activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::XATransactionIdMarshaller()` `[inline]`

**6.746.2.2** `virtual activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::~~XATransactionIdMarshaller()` `[inline, virtual]`

## 6.746.3 Member Function Documentation

**6.746.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.746.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.746.3.3** `virtual void activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3229).

**6.746.3.4** `virtual void activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3229).

**6.746.3.5** `virtual int activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller` (p. 3230).

**6.746.3.6** virtual void activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller** (p. 3230).

**6.746.3.7** virtual void activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller** (p. 3231).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v4/XATransactionIdMarshaller.h

## 6.747 activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3427).

#include <src/main/activemq/wireformat/openwire/marshal/v1/XATransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller:

### Public Member Functions

- **XATransactionIdMarshaller** ()
- virtual **~XATransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.747.1 Detailed Description

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3427). **NOTE!**: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module



## 6.747.2 Constructor & Destructor Documentation

**6.747.2.1** `activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::XATransactionIdMarshaller()` `[inline]`

**6.747.2.2** `virtual activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::~~XATransactionIdMarshaller()` `[inline, virtual]`

## 6.747.3 Member Function Documentation

**6.747.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.747.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.747.3.3** `virtual void activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3225).

**6.747.3.4** `virtual void activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3225).

**6.747.3.5** `virtual int activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::tightMarshal1 (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller` (p. 3226).

**6.747.3.6** virtual void activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller** (p. 3226).

**6.747.3.7** virtual void activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

#### Parameters:

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

#### Exceptions:

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller** (p. 3227).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v1/XATransactionIdMarshaller.h

## 6.748 activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller Class Reference

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3431).

#include <src/main/activemq/wireformat/openwire/marshal/v5/XATransactionIdMarshaller.h> Inheritance diagram for activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller:

### Public Member Functions

- **XATransactionIdMarshaller** ()
- virtual **~XATransactionIdMarshaller** ()
- virtual **commands::DataStructure \* createObject** () const  
*Creates a new instance of this marshalable type.*
- virtual unsigned char **getDataStructureType** () const  
*Get the Data Structure Type that identifies this Marshaler.*
- virtual void **tightUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual int **tightMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write the booleans that this object uses to a BooleanStream.*
- virtual void **tightMarshal2** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut, **utils::BooleanStream** \*bs) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*
- virtual void **looseUnmarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataInputStream** \*dataIn) throw ( decaf::io::IOException )  
*Un-marshal an object instance from the data input stream.*
- virtual void **looseMarshal** (OpenWireFormat \*wireFormat, **commands::DataStructure** \*dataStructure, **decaf::io::DataOutputStream** \*dataOut) throw ( decaf::io::IOException )  
*Write a object instance to data output stream.*

### 6.748.1 Detailed Description

Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3431). NOTE!: This file is auto generated - do not modify! if you need to make a change, please see the Java Classes in the activemq-openwire-generator module

## 6.748.2 Constructor & Destructor Documentation

**6.748.2.1** `activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::XATransactionIdMarshaller()` `[inline]`

**6.748.2.2** `virtual activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::~~XATransactionIdMarshaller()` `[inline, virtual]`

## 6.748.3 Member Function Documentation

**6.748.3.1** `virtual commands::DataStructure* activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::createObject()` `const` `[virtual]`

Creates a new instance of this marshalable type.

### Returns:

new DataStructure object pointer caller owns it.

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1419).

**6.748.3.2** `virtual unsigned char activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::getDataStructureType()` `const` `[virtual]`

Get the Data Structure Type that identifies this Marshaler.

### Returns:

byte holding the data structure type value

Implements `activemq::wireformat::openwire::marshal::DataStreamMarshaller` (p. 1424).

**6.748.3.3** `virtual void activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::looseMarshal(OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataOutputStream * dataOut) throw (decaf::io::IOException)` `[virtual]`

Write a object instance to data output stream.

### Parameters:

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataOut* - BinaryWriter that provides that data sink

### Exceptions:

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3233).

**6.748.3.4** `virtual void activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::looseUnmarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, decaf::io::DataInputStream * dataIn) throw ( decaf::io::IOException )` [virtual]

Un-marshal an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*dataIn* - BinaryReader that provides that data source

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3233).

**6.748.3.5** `virtual int activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::tightMarshal (OpenWireFormat * wireFormat, commands::DataStructure * dataStructure, utils::BooleanStream * bs) throw ( decaf::io::IOException )` [virtual]

Write the booleans that this object uses to a BooleanStream.

**Parameters:**

*wireFormat* - describes the wire format of the broker

*dataStructure* - Object to be marshaled

*bs* - BooleanStream stream used to pack bits from the wire.

**Returns:**

int value indicating the size of the marshaled object.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from `activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller` (p. 3234).

**6.748.3.6** virtual void activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::tightMarshal2 (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataOutputStream \* *dataOut*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Write a object instance to data output stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker  
*dataStructure* - Object to be marshaled  
*dataOut* - BinaryReader that provides that data sink  
*bs* - BooleanStream stream used to pack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the marshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller** (p. 3234).

**6.748.3.7** virtual void activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller::tightUnmarshal (OpenWireFormat \* *wireFormat*, commands::DataStructure \* *dataStructure*, decaf::io::DataInputStream \* *dataIn*, utils::BooleanStream \* *bs*) throw ( decaf::io::IOException ) [virtual]

Un-marshall an object instance from the data input stream.

**Parameters:**

*wireFormat* - describes the wire format of the broker.  
*dataStructure* - Object to be un-marshaled.  
*dataIn* - BinaryReader that provides that data.  
*bs* - BooleanStream stream used to unpack bits from the wire.

**Exceptions:**

*IOException* if an error occurs during the unmarshal.

Reimplemented from **activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller** (p. 3235).

The documentation for this class was generated from the following file:

- src/main/activemq/wireformat/openwire/marshal/v5/XATransactionIdMarshaller.h





# Chapter 7

## File Documentation

### 7.1 src/main/activemq/cmsutil/CachedConsumer.h      File Reference

```
#include <cms/MessageConsumer.h>
#include <activemq/util/Config.h>
```

#### Data Structures

- class **activemq::cmsutil::CachedConsumer**  
*A cached message consumer contained within a pooled session.*

#### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.2 src/main/activemq/cmsutil/CachedProducer.h File Reference

```
#include <cms/MessageProducer.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::CachedProducer**  
*A cached message producer contained within a pooled session.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.3 src/main/activemq/cmsutil/CmsAccessor.h File Reference

```
#include <cms/ConnectionFactory.h>
#include <activemq/cmsutil/ResourceLifecycleManager.h>
#include <activemq/util/Config.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
```

### Data Structures

- class **activemq::cmsutil::CmsAccessor**

*Base class for **activemq.cmsutil.CmsTemplate** (p. 1041) and other CMS-accessing gateway helpers, defining common properties such as the CMS **cms.ConnectionFactory** (p. 1184) to operate on.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::cmsutil**

## 7.4 src/main/activemq/cmsutil/CmsDestinationAccessor.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/cmsutil/CmsAccessor.h>
#include <activemq/cmsutil/DynamicDestinationResolver.h>
```

### Data Structures

- class **activemq::cmsutil::CmsDestinationAccessor**  
*Extends the `CmsAccessor` (p. 1024) to add support for resolving destination names.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.5 src/main/activemq/cmsutil/CmsTemplate.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/cmsutil/CmsDestinationAccessor.h>
#include <activemq/cmsutil/SessionCallback.h>
#include <activemq/cmsutil/ProducerCallback.h>
#include <activemq/cmsutil/SessionPool.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <cms/ConnectionFactory.h>
#include <cms/DeliveryMode.h>
#include <string>
```

### Data Structures

- class **activemq::cmsutil::CmsTemplate**  
*CmsTemplate* (p. 1041) simplifies performing synchronous CMS operations.
- class **activemq::cmsutil::CmsTemplate::ProducerExecutor**
- class **activemq::cmsutil::CmsTemplate::ResolveProducerExecutor**
- class **activemq::cmsutil::CmsTemplate::SendExecutor**
- class **activemq::cmsutil::CmsTemplate::ReceiveExecutor**
- class **activemq::cmsutil::CmsTemplate::ResolveReceiveExecutor**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.6 src/main/activemq/cmsutil/DestinationResolver.h File Reference

```
#include <cms/Session.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::DestinationResolver**  
*Resolves a CMS destination name to a **Destination**.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.7 src/main/activemq/cmsutil/DynamicDestinationResolver.h File Reference

```
#include <activemq/cmsutil/DestinationResolver.h>
#include <cms/Session.h>
#include <decaf/util/StlMap.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::DynamicDestinationResolver**  
*Resolves a CMS destination name to a *Destination*.*
- class **activemq::cmsutil::DynamicDestinationResolver::SessionResolver**  
*Manages maps of names to topics and queues for a single session.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.8 src/main/activemq/cmsutil/MessageCreator.h File Reference

```
#include <cms/Session.h>
#include <cms/Message.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::MessageCreator**  
*Creates the user-defined message to be sent by the `CmsTemplate` (p. 1041).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**



## 7.9 src/main/activemq/cmsutil/PooledSession.h File Reference

```
#include <cms/Session.h>
#include <decaf/util/STLMap.h>
#include <activemq/cmsutil/CachedProducer.h>
#include <activemq/cmsutil/CachedConsumer.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::PooledSession**  
*A pooled session object that wraps around a delegate session.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.10 src/main/activemq/cmsutil/ProducerCallback.h File Reference

```
#include <cms/Session.h>
#include <cms/MessageProducer.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::ProducerCallback**  
*Callback for sending a message to a CMS destination.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.11 src/main/activemq/cmsutil/ResourceLifecycleManager.h File Reference

```
#include <cms/Connection.h>
#include <cms/Session.h>
#include <cms/Destination.h>
#include <cms/MessageProducer.h>
#include <cms/MessageConsumer.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::ResourceLifecycleManager**  
*Manages the lifecycle of a set of CMS resources.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.12 src/main/activemq/cmsutil/SessionCallback.h File Reference

```
#include <cms/Session.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::SessionCallback**  
*Callback for executing any number of operations on a provided CMS Session.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.13 src/main/activemq/cmsutil/SessionPool.h File Reference

```
#include <activemq/cmsutil/PooledSession.h>
#include <decaf/util/concurrent/Mutex.h>
#include <cms/Connection.h>
#include <list>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::cmsutil::SessionPool**  
*A pool of CMS sessions from the same connection and with the same acknowledge mode.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::cmsutil**

## 7.14 src/main/activemq/commands/ActiveMQBlobMessage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <cms/Message.h>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQBlobMessage`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.15 src/main/activemq/commands/ActiveMQBytesMessage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <decaf/io/ByteArrayOutputStream.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <cms/BytesMessage.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::commands::ActiveMQBytesMessage**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**

## 7.16 src/main/activemq/commands/ActiveMQDestination.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/ActiveMQProperties.h>
#include <cms/Destination.h>
#include <decaf/lang/Pointer.h>
#include <vector>
#include <string>
#include <map>
```

### Data Structures

- class **activemq::commands::ActiveMQDestination**
- struct **activemq::commands::ActiveMQDestination::DestinationFilter**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**



## 7.17 src/main/activemq/commands/ActiveMQMapMessage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <activemq/util/PrimitiveMap.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <cms/MapMessage.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQMapMessage`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.18 src/main/activemq/commands/ActiveMQMessage.h File Reference

```
#include <cms/Message.h>
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
```

### Data Structures

- class **activemq::commands::ActiveMQMessage**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.19 src/main/activemq/commands/ActiveMQMessageTemplate.h File Reference

```
#include <cms/DeliveryMode.h>
#include <activemq/util/Config.h>
#include <activemq/commands/Message.h>
#include <activemq/core/ActiveMQAckHandler.h>
#include <activemq/wireformat/openwire/utls/MessagePropertyInterceptor.h>
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <activemq/util/CMSExceptionSupport.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <cms/IllegalStateException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageNotReadableException.h>
#include <cms/MessageNotWritableException.h>
```

### Data Structures

- class `activemq::commands::ActiveMQMessageTemplate< T >`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.20 src/main/activemq/commands/ActiveMQObjectMessage.h File Reference

```
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <cms/ObjectMessage.h>
#include <activemq/util/Config.h>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQObjectMessage`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.21 src/main/activemq/commands/ActiveMQQueue.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <decaf/lang/Exception.h>
#include <cms/Queue.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQQueue`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.22 src/main/activemq/commands/ActiveMQStreamMessage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessage.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <cms/StreamMessage.h>
#include <cms/MessageNotWriteableException.h>
#include <cms/MessageNotReadableException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageEOFException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/ByteArrayOutputStream.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::commands::ActiveMQStreamMessage**

### Namespaces

- namespace **activemq**

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- namespace **activemq::commands**

## 7.23 src/main/activemq/commands/ActiveMQTempDestination.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <cms/Closeable.h>
#include <vector>
#include <string>
```

### Data Structures

- class `activemq::commands::ActiveMQTempDestination`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::core`
- namespace `activemq::commands`

## 7.24 src/main/activemq/commands/ActiveMQTempQueue.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQTempDestination.h>
#include <cms/TemporaryQueue.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQTempQueue`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`



## 7.25 src/main/activemq/commands/ActiveMQTempTopic.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQTempDestination.h>
#include <cms/TemporaryTopic.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQTempTopic`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.26 src/main/activemq/commands/ActiveMQTextMessage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQMessageTemplate.h>
#include <cms/TextMessage.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQTextMessage`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.27 src/main/activemq/commands/ActiveMQTopic.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <decaf/lang/Exception.h>
#include <cms/Topic.h>
#include <vector>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::commands::ActiveMQTopic`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.28 src/main/activemq/commands/BaseCommand.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
```

### Data Structures

- class **activemq::commands::BaseCommand**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**

## 7.29 src/main/activemq/commands/BaseDataStructure.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <string>
#include <sstream>
```

### Data Structures

- class **activemq::commands::BaseDataStructure**

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::commands**

## 7.30 src/main/activemq/commands/BooleanExpression.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::commands::BooleanExpression**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**

## 7.31 src/main/activemq/commands/BrokerError.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/BaseCommand.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::BrokerError**  
*This class represents an Exception sent from the Broker.*
- struct **activemq::commands::BrokerError::StackTraceElement**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.32 src/main/activemq/commands/BrokerId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::BrokerId`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`



## 7.33 src/main/activemq/commands/BrokerInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/BrokerInfo.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::BrokerInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.34 src/main/activemq/commands/Command.h File Reference

```
#include <string>
#include <activemq/util/Config.h>
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::commands::Command**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::state**
- namespace **activemq::commands**

## 7.35 src/main/activemq/commands/ConnectionControl.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::ConnectionControl`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.36 src/main/activemq/commands/ConnectionError.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerError.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ConnectionError**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.37 src/main/activemq/commands/ConnectionId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::ConnectionId`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.38 src/main/activemq/commands/ConnectionInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ConnectionInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.39 src/main/activemq/commands/ConsumerControl.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ConsumerControl**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.40 src/main/activemq/commands/ConsumerId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/SessionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ConsumerId**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**



## 7.41 src/main/activemq/commands/ConsumerInfo.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BooleanExpression.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ConsumerInfo**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**

## 7.42 src/main/activemq/commands/ControlCommand.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ControlCommand**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::commands**

## 7.43 src/main/activemq/commands/DataArrayResponse.h File Reference

```
#include <activemq/commands/DataSet.h>
#include <activemq/commands/Response.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::DataArrayResponse**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.44 src/main/activemq/commands/DataResponse.h File Reference

```
#include <activemq/commands/DataSet.h>
#include <activemq/commands/Response.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::DataResponse`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.45 src/main/activemq/commands/DataStructure.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/wireformat/MarshalAware.h>
```

### Data Structures

- class **activemq::commands::DataStructure**

### Namespaces

- namespace **activemq**

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- namespace **activemq::commands**

## 7.46 src/main/activemq/commands/DestinationInfo.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::DestinationInfo`

### Namespaces

- namespace `activemq`  
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- namespace `activemq::commands`

## 7.47 src/main/activemq/commands/DiscoveryEvent.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::DiscoveryEvent**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::commands**

## 7.48 src/main/activemq/commands/ExceptionResponse.h File Reference

```
#include <activemq/commands/BrokerError.h>
#include <activemq/commands/Response.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::ExceptionResponse`

### Namespaces

- namespace `activemq`  
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- namespace `activemq::commands`



## 7.49 src/main/activemq/commands/FlushCommand.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::FlushCommand**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::commands**

## 7.50 src/main/activemq/commands/IntegerResponse.h File Reference

```
#include <activemq/commands/Response.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::IntegerResponse**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::commands**

## 7.51 src/main/activemq/commands/JournalQueueAck.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/MessageAck.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::JournalQueueAck**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.52 src/main/activemq/commands/JournalTopicAck.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/MessageId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::JournalTopicAck`

### Namespaces

- namespace `activemq`  
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- namespace `activemq::commands`

## 7.53 src/main/activemq/commands/JournalTrace.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::JournalTrace**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.54 src/main/activemq/commands/JournalTransaction.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::JournalTransaction**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::commands**

## 7.55 src/main/activemq/commands/KeepAliveInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::KeepAliveInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.56 src/main/activemq/commands/LastPartialCommand.h File Reference

```
#include <activemq/commands/PartialCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::LastPartialCommand**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**



## 7.57 src/main/activemq/commands/LocalTransactionId.h File Reference

```
#include <activemq/commands/ConnectionId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::LocalTransactionId**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.58 src/main/activemq/commands/Message.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/commands/MessageId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/core/ActiveMQAckHandler.h>
#include <activemq/util/Config.h>
#include <activemq/util/PrimitiveMap.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::Message**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**
- namespace **activemq::commands**

## 7.59 src/main/cms/Message.h File Reference

```
#include <cms/Config.h>
#include <cms/Destination.h>
#include <cms/DeliveryMode.h>
#include <cms/CMSException.h>
#include <cms/IllegalStateException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageNotWriteableException.h>
```

### Data Structures

- class **cms::Message**  
*Root of all messages.*

### Namespaces

- namespace **cms**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

## 7.60 src/main/activemq/commands/MessageAck.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/MessageId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::MessageAck**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**

## 7.61 src/main/activemq/commands/MessageDispatch.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/Message.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::MessageDispatch`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.62 src/main/activemq/commands/MessageDispatchNotification.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/MessageId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::MessageDispatchNotification**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.63 src/main/activemq/commands/MessageId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::MessageId`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.64 src/main/activemq/commands/MessagePull.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/MessageId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::MessagePull`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`



## 7.65 src/main/activemq/commands/NetworkBridgeFilter.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::NetworkBridgeFilter`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.66 src/main/activemq/commands/PartialCommand.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::PartialCommand**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.67 src/main/activemq/commands/ProducerAck.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ProducerAck**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.68 src/main/activemq/commands/ProducerId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/SessionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ProducerId**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.69 src/main/activemq/commands/ProducerInfo.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/BrokerId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::ProducerInfo`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.70 src/main/activemq/commands/RemoveInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/DataSet.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::RemoveInfo`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.71 src/main/activemq/commands/RemoveSubscriptionInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::RemoveSubscriptionInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.72 src/main/activemq/commands/ReplayCommand.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ReplayCommand**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**



## 7.73 src/main/activemq/commands/Response.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::Response**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.74 src/main/activemq/commands/SessionId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::SessionId**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.75 src/main/activemq/commands/SessionInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/SessionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::SessionInfo`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.76 src/main/activemq/commands/ShutdownInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::ShutdownInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.77 src/main/activemq/commands/SubscriptionInfo.h File Reference

```
#include <activemq/commands/ActiveMQDestination.h>
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::SubscriptionInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.78 src/main/activemq/commands/TransactionId.h File Reference

```
#include <activemq/commands/BaseDataStructure.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::TransactionId`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.79 src/main/activemq/commands/TransactionInfo.h File Reference

```
#include <activemq/commands/BaseCommand.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class **activemq::commands::TransactionInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**

## 7.80 src/main/activemq/commands/WireFormatInfo.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/BaseCommand.h>
#include <activemq/util/PrimitiveMap.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <vector>
```

### Data Structures

- class **activemq::commands::WireFormatInfo**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**



## 7.81 src/main/activemq/commands/XATransactionId.h File Reference

```
#include <activemq/commands/TransactionId.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <vector>
```

### Data Structures

- class `activemq::commands::XATransactionId`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::commands`

## 7.82 src/main/activemq/core/ActiveMQAckHandler.h File Reference

```
#include <cms/CMSException.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::core::ActiveMQAckHandler**  
*Interface class that is used to give CMS Messages an interface to Ack themselves with.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::commands**
- namespace **activemq::core**

## 7.83 src/main/activemq/core/ActiveMQConnection.h File Reference

```
#include <cms/Connection.h>
#include <activemq/util/Config.h>
#include <activemq/core/ActiveMQConnectionSupport.h>
#include <activemq/core/ActiveMQConnectionMetaData.h>
#include <activemq/core/Dispatcher.h>
#include <activemq/commands/ActiveMQTempDestination.h>
#include <activemq/commands/BrokerInfo.h>
#include <activemq/commands/ConnectionInfo.h>
#include <activemq/commands/ConsumerInfo.h>
#include <activemq/commands/ProducerInfo.h>
#include <activemq/commands/LocalTransactionId.h>
#include <activemq/commands/WireFormatInfo.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/transport/TransportListener.h>
#include <decaf/util/Properties.h>
#include <decaf/util/STLMap.h>
#include <decaf/util/STLSet.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::core::ActiveMQConnection**  
*Concrete connection used for all connectors to the ActiveMQ broker.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.84 src/main/activemq/core/ActiveMQConnectionFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <cms/ConnectionFactory.h>
#include <cms/Connection.h>
```

### Data Structures

- class **activemq::core::ActiveMQConnectionFactory**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.85 src/main/activemq/core/ActiveMQConnectionMetaData.h File Reference

```
#include <activemq/util/Config.h>
#include <cms/ConnectionMetaData.h>
```

### Data Structures

- class **activemq::core::ActiveMQConnectionMetaData**

*This class houses all the various settings and information that is used by an instance of an **ActiveMQConnection** (p. 233) class.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**

## 7.86 src/main/activemq/core/ActiveMQConnectionSupport.h File Reference

```
#include <cms/ExceptionListener.h>
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/transport/Transport.h>
#include <activemq/transport/TransportListener.h>
#include <activemq/util/LongSequenceGenerator.h>
#include <decaf/util/Properties.h>
#include <decaf/lang/Exception.h>
#include <decaf/lang/Pointer.h>
#include <memory>
```

### Data Structures

- class **activemq::core::ActiveMQConnectionSupport**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.87 src/main/activemq/core/ActiveMQConstants.h File Reference

```
#include <string>
#include <map>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::core::ActiveMQConstants**  
*Class holding constant values for various ActiveMQ specific things Each constant is defined as an enumeration and has functions that convert back and forth between string and enum values.*
- class **activemq::core::ActiveMQConstants::StaticInitializer**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.88 src/main/activemq/core/ActiveMQConsumer.h File Reference

```
#include <cms/MessageConsumer.h>
#include <cms/MessageListener.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/commands/ConsumerInfo.h>
#include <activemq/commands/MessageAck.h>
#include <activemq/commands/MessageDispatch.h>
#include <activemq/core/ActiveMQTransactionContext.h>
#include <activemq/core/Dispatcher.h>
#include <activemq/core/MessageDispatchChannel.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/StlQueue.h>
#include <decaf/util/concurrent/Mutex.h>
#include <memory>
```

### Data Structures

- class **activemq::core::ActiveMQConsumer**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**



## 7.89 src/main/activemq/core/ActiveMQProducer.h File Reference

```
#include <cms/MessageProducer.h>
#include <cms/Message.h>
#include <cms/Destination.h>
#include <cms/DeliveryMode.h>
#include <activemq/util/Config.h>
#include <activemq/util/MemoryUsage.h>
#include <activemq/commands/ProducerInfo.h>
#include <activemq/commands/ProducerAck.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <memory>
```

### Data Structures

- class **activemq::core::ActiveMQProducer**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.90 src/main/activemq/core/ActiveMQSession.h File Reference

```
#include <cms/Session.h>
#include <cms/ExceptionListener.h>
#include <activemq/util/Config.h>
#include <activemq/util/Usage.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/core/ActiveMQTransactionContext.h>
#include <activemq/commands/ActiveMQTempDestination.h>
#include <activemq/commands/SessionInfo.h>
#include <activemq/commands/ConsumerInfo.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/core/Dispatcher.h>
#include <activemq/core/MessageDispatchChannel.h>
#include <activemq/util/LongSequenceGenerator.h>
#include <decaf/util/StlMap.h>
#include <decaf/util/StlQueue.h>
#include <decaf/util/Properties.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::core::ActiveMQSession**

### Namespaces

- namespace **activemq**

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- namespace **activemq::core**

## 7.91 src/main/activemq/core/ActiveMQSessionExecutor.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/core/MessageDispatchChannel.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/MessageDispatch.h>
#include <activemq/threads/Task.h>
#include <activemq/threads/TaskRunner.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::core::ActiveMQSessionExecutor**  
*Delegate dispatcher for a single session.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**

## 7.92 src/main/activemq/core/ActiveMQTransactionContext.h File Reference

```
#include <memory>
#include <cms/Message.h>
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/commands/LocalTransactionId.h>
#include <activemq/core/Synchronization.h>
#include <activemq/util/LongSequenceGenerator.h>
#include <decaf/lang/exceptions/InvalidStateException.h>
#include <decaf/util/StlSet.h>
#include <decaf/util/Properties.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **activemq::core::ActiveMQTransactionContext**

*Transaction Management class, hold messages that are to be redelivered upon a request to roll-back.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**

## 7.93 src/main/activemq/core/DispatchData.h File Reference

```
#include <stdlib.h>
#include <memory>
#include <activemq/util/Config.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/Message.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::core::DispatchData**

*Simple POCO that contains the information necessary to route a message to a specified consumer.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**

## 7.94 src/main/activemq/core/Dispatcher.h File Reference

```
#include <activemq/commands/MessageDispatch.h>
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::core::Dispatcher**

*Interface for an object responsible for dispatching messages to consumers.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::core**

## 7.95 src/main/activemq/core/MessageDispatchChannel.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/MessageDispatch.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/StlQueue.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class `activemq::core::MessageDispatchChannel`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::core`

## 7.96 src/main/activemq/core/Synchronization.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
```

### Data Structures

- class **activemq::core::Synchronization**  
*Transacted Object **Synchronization** (p. 3137), used to sync the events of a Transaction with the items in the Transaction.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::core**



## 7.97 src/main/activemq/exceptions/ActiveMQException.h File Reference

```
#include <activemq/util/Config.h>
#include <cms/CMSException.h>
#include <decaf/lang/Exception.h>
#include <activemq/exceptions/ExceptionDefines.h>
#include <stdarg.h>
#include <sstream>
```

### Data Structures

- class `activemq::exceptions::ActiveMQException`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::exceptions`

## 7.98 src/main/activemq/exceptions/BrokerException.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/commands/BrokerError.h>
#include <sstream>
```

### Data Structures

- class `activemq::exceptions::BrokerException`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::exceptions`

## 7.99 src/main/activemq/exceptions/ExceptionDefines.h File Reference

### Defines

- `#define AMQ_CATCH_RETHROW(type)`  
*Macro for catching and re-throwing an exception of a given type.*
- `#define AMQ_CATCH_EXCEPTION_CONVERT(sourceType, targetType)`  
*Macro for catching an exception of one type and then re-throwing as another type.*
- `#define AMQ_CATCHALL_THROW(type)`  
*A catch-all that throws a known exception.*
- `#define AMQ_CATCHALL_NOTHROW()`  
*A catch-all that does not throw an exception, one use would be to catch any exception in a destructor and mark it, but not throw so that cleanup would continue as normal.*
- `#define AMQ_CATCH_NOTHROW(type)`  
*Macro for catching and re-throwing an exception of a given type.*

### 7.99.1 Define Documentation

#### 7.99.1.1 `#define AMQ_CATCH_EXCEPTION_CONVERT(sourceType, targetType)`

##### Value:

```
catch( sourceType& ex ){ \
    targetType target( ex ); \
    target.setMark( __FILE__, __LINE__ ); \
    throw target; \
}
```

Macro for catching an exception of one type and then re-throwing as another type.

##### Parameters:

***sourceType*** the type of the exception to be caught.

***targetType*** the type of the exception to be thrown.

Referenced by `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalObjectArray()`, `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray1()`, and `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray2()`.

#### 7.99.1.2 `#define AMQ_CATCH_NOTHROW(type)`

##### Value:

```
catch( type& ex ){ \
    ex.setMark( __FILE__, __LINE__ ); \
}
```

Macro for catching and re-throwing an exception of a given type.

**Parameters:**

*type* The type of the exception to throw (e.g. `ActiveMQException` ).

### 7.99.1.3 `#define AMQ_CATCH_RETHROW(type)`

**Value:**

```
catch( type& ex ){ \
    ex.setMark( __FILE__, __LINE__ ); \
    throw ex; \
}
```

Macro for catching and re-throwing an exception of a given type.

**Parameters:**

*type* The type of the exception to throw (e.g. `ActiveMQException` ).

Referenced by `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalObjectArray()`, `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray1()`, and `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray2()`.

### 7.99.1.4 `#define AMQ_CATCHALL_NOTHROW()`

**Value:**

```
catch( ... ){ \
    activemq::exceptions::ActiveMQException ex( __FILE__, __LINE__, \
    "caught unknown exception, not rethrowing" ); \
}
```

A catch-all that does not throw an exception, one use would be to catch any exception in a destructor and mark it, but not throw so that cleanup would continue as normal.

### 7.99.1.5 `#define AMQ_CATCHALL_THROW(type)`

**Value:**

```
catch( ... ){ \
    type ex( __FILE__, __LINE__, \
    "caught unknown exception" ); \
    throw ex; \
}
```

A catch-all that throws a known exception.

**Parameters:**

*type* the type of exception to be thrown.

Referenced by `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::looseMarshalObjectArray()`,  
`activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray1()`,  
and `activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller::tightMarshalObjectArray2()`.

## 7.100 src/main/decaf/lang/exceptions/ExceptionDefines.h File Reference

### Defines

- `#define DECAF_CATCH_RETHROW(type)`  
*Macro for catching and rethrowing an exception of a given type.*
- `#define DECAF_CATCH_EXCEPTION_CONVERT(sourceType, targetType)`  
*Macro for catching an exception of one type and then rethrowing as another type.*
- `#define DECAF_CATCHALL_THROW(type)`  
*A catch-all that throws a known exception.*
- `#define DECAF_CATCHALL_NOTHROW()`  
*A catch-all that does not throw an exception, one use would be to catch any exception in a destructor and mark it, but not throw so that cleanup would continue as normal.*
- `#define DECAF_CATCH_NOTHROW(type)`  
*Macro for catching and rethrowing an exception of a given type.*

### 7.100.1 Define Documentation

#### 7.100.1.1 `#define DECAF_CATCH_EXCEPTION_CONVERT(sourceType, targetType)`

##### Value:

```
catch( sourceType& ex ){ \
    targetType target( &ex ); \
    target.setMark( __FILE__, __LINE__ ); \
    throw target; \
}
```

Macro for catching an exception of one type and then rethrowing as another type.

##### Parameters:

***sourceType*** the type of the exception to be caught.  
***targetType*** the type of the exception to be thrown.

Referenced by `decaf::util::PriorityQueue< E >::add()`.

#### 7.100.1.2 `#define DECAF_CATCH_NOTHROW(type)`

##### Value:

```
catch( type& ex ){ \
    ex.setMark( __FILE__, __LINE__ ); \
}
```

Macro for catching and rethrowing an exception of a given type.

**Parameters:**

*type* The type of the exception to throw (e.g. `Exception` ).

Referenced by `decaf::io::FilterInputStream::~~FilterInputStream()`, `decaf::io::FilterOutputStream::~~FilterOutputStream()`, and `decaf::util::logging::StreamHandler::~~StreamHandler()`.

**7.100.1.3 #define DECAF\_CATCH\_RETHROW(type)****Value:**

```
catch( type& ex ){ \
    ex.setMark( __FILE__, __LINE__ ); \
    throw ex; \
}
```

Macro for catching and rethrowing an exception of a given type.

**Parameters:**

*type* The type of the exception to throw (e.g. `Exception` ).

Referenced by `decaf::util::PriorityQueue< E >::add()`, `decaf::io::FilterInputStream::available()`, `decaf::io::FilterInputStream::close()`, `decaf::io::FilterInputStream::close()`, `decaf::io::FilterOutputStream::flush()`, `decaf::util::concurrent::Lock::lock()`, `decaf::util::concurrent::Lock::Lock()`, `decaf::util::logging::StreamHandler::publish()`, `decaf::io::FilterInputStream::read()`, `decaf::io::FilterInputStream::reset()`, `decaf::io::FilterInputStream::skip()`, `decaf::util::concurrent::Lock::unlock()`, `decaf::io::FilterOutputStream::write()`, and `decaf::util::concurrent::Lock::~~Lock()`.

**7.100.1.4 #define DECAF\_CATCHALL\_NOTHROW()****Value:**

```
catch( ... ){ \
    lang::Exception ex( __FILE__, __LINE__, \
        "caught unknown exception, not rethrowing" ); \
}
```

A catch-all that does not throw an exception, one use would be to catch any exception in a destructor and mark it, but not throw so that cleanup would continue as normal.

Referenced by `decaf::io::FilterInputStream::mark()`, `decaf::io::FilterInputStream::markSupported()`, `decaf::io::FilterInputStream::~~FilterInputStream()`, `decaf::io::FilterOutputStream::~~FilterOutputStream()`, and `decaf::util::logging::StreamHandler::~~StreamHandler()`.

**7.100.1.5 #define DECAF\_CATCHALL\_THROW(type)****Value:**

```
catch( ... ){ \
    type ex( __FILE__, __LINE__, \
        "caught unknown exception" ); \
    throw ex; \
}
```

A catch-all that throws a known exception.

**Parameters:**

*type* the type of exception to be thrown.

Referenced by decaf::util::PriorityQueue< E >::add(), decaf::io::FilterInputStream::available(), decaf::io::FilterOutputStream::close(), decaf::io::FilterInputStream::close(), decaf::io::FilterOutputStream::flush(), decaf::util::concurrent::Lock::lock(), decaf::util::concurrent::Lock::Lock(), decaf::util::logging::StreamHandler::publish(), decaf::io::FilterInputStream::read(), decaf::io::FilterInputStream::reset(), decaf::io::FilterInputStream::skip(), decaf::util::concurrent::Lock::unlock(), decaf::io::FilterOutputStream::write(), and decaf::util::concurrent::Lock::~~Lock().



## 7.101 src/main/activemq/io/LoggingInputStream.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/io/FilterInputStream.h>
#include <decaf/util/logging/LoggerDefines.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class `activemq::io::LoggingInputStream`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::io`

## 7.102 src/main/activemq/io/LoggingOutputStream.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/io/FilterOutputStream.h>
#include <decaf/util/logging/LoggerDefines.h>
```

### Data Structures

- class **activemq::io::LoggingOutputStream**  
*OutputStream filter that just logs the data being written.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::io**

## 7.103 src/main/activemq/library/ActiveMQCPP.h File Reference

```
#include <activemq/util/Config.h>
```

### Data Structures

- class `activemq::library::ActiveMQCPP`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::library`

## 7.104 src/main/activemq/state/CommandVisitor.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::state::CommandVisitor**

*Interface for an Object that can visit the various Command Objects that are sent from and to this client.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::commands**
- namespace **activemq::state**

## 7.105 src/main/activemq/state/CommandVisitorAdapter.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/state/CommandVisitor.h>
#include <activemq/core/ActiveMQConstants.h>
#include <activemq/commands/ConnectionInfo.h>
#include <activemq/commands/SessionInfo.h>
#include <activemq/commands/ProducerInfo.h>
#include <activemq/commands/ConsumerInfo.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/commands/SessionId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/DestinationInfo.h>
#include <activemq/commands/RemoveSubscriptionInfo.h>
#include <activemq/commands/Message.h>
#include <activemq/commands/MessageAck.h>
#include <activemq/commands/MessagePull.h>
#include <activemq/commands/TransactionInfo.h>
#include <activemq/commands/WireFormatInfo.h>
#include <activemq/commands/ProducerAck.h>
#include <activemq/commands/MessageDispatch.h>
#include <activemq/commands/MessageDispatchNotification.h>
#include <activemq/commands/ControlCommand.h>
#include <activemq/commands/ConnectionError.h>
#include <activemq/commands/ConnectionControl.h>
#include <activemq/commands/ConsumerControl.h>
#include <activemq/commands/ShutdownInfo.h>
#include <activemq/commands/KeepAliveInfo.h>
#include <activemq/commands/FlushCommand.h>
#include <activemq/commands/BrokerError.h>
#include <activemq/commands/BrokerInfo.h>
#include <activemq/commands/RemoveInfo.h>
#include <activemq/commands/ReplayCommand.h>
#include <activemq/commands/Response.h>
```

## Data Structures

- class **activemq::state::CommandVisitorAdapter**

*Default Implementation of a **CommandVisitor** (p. 1069) that returns NULL for all calls.*

## Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::state**

## 7.106 src/main/activemq/state/ConnectionState.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ConnectionInfo.h>
#include <activemq/commands/DestinationInfo.h>
#include <activemq/commands/SessionInfo.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/state/ConsumerState.h>
#include <activemq/state/ProducerState.h>
#include <activemq/state/SessionState.h>
#include <activemq/state/TransactionState.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/util/concurrent/ConcurrentStlMap.h>
#include <decaf/util/StlList.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::state::ConnectionState**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::state**

## 7.107 src/main/activemq/state/ConnectionStateTracker.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ConnectionId.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/state/CommandVisitorAdapter.h>
#include <activemq/state/ConnectionState.h>
#include <activemq/state/ConsumerState.h>
#include <activemq/state/ProducerState.h>
#include <activemq/state/SessionState.h>
#include <activemq/state/TransactionState.h>
#include <activemq/state/Tracked.h>
#include <activemq/transport/Transport.h>
#include <decaf/util/concurrent/ConcurrentStlMap.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class `activemq::state::ConnectionStateTracker`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::state`



## 7.108 src/main/activemq/state/ConsumerState.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ConsumerInfo.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::state::ConsumerState`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::state`

## 7.109 src/main/activemq/state/ProducerState.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/ProducerInfo.h>
#include <decaf/lang/Pointer.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::state::ProducerState**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::state**

## 7.110 src/main/activemq/state/SessionState.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/SessionInfo.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/state/ConsumerState.h>
#include <activemq/state/ProducerState.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/util/concurrent/ConcurrentStlMap.h>
#include <string>
#include <memory>
```

### Data Structures

- class **activemq::state::SessionState**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::state**

## 7.111 src/main/activemq/state/Tracked.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Response.h>
#include <decaf/lang/Runnable.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::state::Tracked**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::state**

## 7.112 src/main/activemq/state/TransactionState.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/TransactionId.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/StlList.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <string>
#include <memory>
```

### Data Structures

- class `activemq::state::TransactionState`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::state`

## 7.113 src/main/activemq/threads/CompositeTask.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/threads/Task.h>
```

### Data Structures

- class **activemq::threads::CompositeTask**

*Represents a single task that can be part of a set of Tasks that are contained in a CompositeTaskRunner (p. 1092).*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::threads**

## 7.114 src/main/activemq/threads/CompositeTaskRunner.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/threads/TaskRunner.h>
#include <activemq/threads/CompositeTask.h>
#include <decaf/util/StlSet.h>
#include <decaf/util/StlList.h>
#include <decaf/lang/Thread.h>
#include <decaf/lang/Runnable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::threads::CompositeTaskRunner**

*A **Task** (p. 3148) Runner that can contain one or more CompositeTasks that are each checked for pending work and run if any is present in the order that the tasks were added.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::threads**

## 7.115 src/main/activemq/threads/DedicatedTaskRunner.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/threads/TaskRunner.h>
#include <activemq/threads/Task.h>
#include <decaf/lang/Thread.h>
#include <decaf/lang/Runnable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class `activemq::threads::DedicatedTaskRunner`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::threads`



## 7.116 src/main/activemq/threads/Task.h File Reference

```
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::threads::Task**

*Represents a unit of work that requires one or more iterations to complete.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::threads**

## 7.117 src/main/activemq/threads/TaskRunner.h File Reference

```
#include <activemq/util/Config.h>  
#include <activemq/threads/Task.h>
```

### Data Structures

- class **activemq::threads::TaskRunner**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::threads**

## 7.118 src/main/activemq/transport/AbstractTransportFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/Transport.h>
#include <activemq/transport/TransportFactory.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/Properties.h>
```

### Data Structures

- class **activemq::transport::AbstractTransportFactory**

*Abstract implementation of the **TransportFactory** (p. 3279) interface, providing the base functionality that's common to most of the **TransportFactory** (p. 3279) instances.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**

## 7.119 src/main/activemq/transport/CompositeTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/Transport.h>
#include <decaf/net/URI.h>
#include <decaf/util/List.h>
```

### Data Structures

- class **activemq::transport::CompositeTransport**

*A Composite **Transport** (p. 3273) is a **Transport** (p. 3273) implementation that is composed of several **Transports**.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**

## 7.120 src/main/activemq/transport/correlator/FutureResponse.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/concurrent/CountDownLatch.h>
#include <activemq/commands/Response.h>
#include <activemq/exceptions/ActiveMQException.h>
```

### Data Structures

- class **activemq::transport::correlator::FutureResponse**

*A container that holds a response object.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**
- namespace **activemq::transport::correlator**

## 7.121 src/main/activemq/transport/correlator/ResponseCorrelator.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <activemq/transport/correlator/FutureResponse.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/Response.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/util/concurrent/atomic/AtomicInteger.h>
#include <map>
#include <stdio.h>
```

### Data Structures

- class **activemq::transport::correlator::ResponseCorrelator**

*This type of transport filter is responsible for correlating asynchronous responses with requests.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**
- namespace **activemq::transport::correlator**

## 7.122 src/main/activemq/transport/DefaultTransportListener.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportListener.h>
#include <activemq/commands/Command.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::transport::DefaultTransportListener**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**

## 7.123 src/main/activemq/transport/failover/BackupTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/Transport.h>
#include <activemq/transport/DefaultTransportListener.h>
#include <decaf/net/URI.h>
#include <decaf/lang/Pointer.h>
#include <memory>
```

### Data Structures

- class `activemq::transport::failover::BackupTransport`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::transport`
- namespace `activemq::transport::failover`



## 7.124 src/main/activemq/transport/failover/BackupTransportPool.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/threads/CompositeTask.h>
#include <activemq/threads/CompositeTaskRunner.h>
#include <activemq/transport/failover/CloseTransportsTask.h>
#include <activemq/transport/failover/BackupTransport.h>
#include <activemq/transport/failover/URIPool.h>
#include <decaf/lang/Pointer.h>
#include <decaf/io/IOException.h>
#include <decaf/util/StlList.h>
```

### Data Structures

- class **activemq::transport::failover::BackupTransportPool**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**
- namespace **activemq::transport::failover**

## 7.125 src/main/activemq/transport/failover/CloseTransportsTask.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/threads/CompositeTask.h>
#include <activemq/transport/Transport.h>
#include <decaf/util/StlQueue.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class `activemq::transport::failover::CloseTransportsTask`

### Namespaces

- namespace `activemq`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `activemq::transport`
- namespace `activemq::transport::failover`

## 7.126 src/main/activemq/transport/failover/FailoverTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <activemq/threads/TaskRunner.h>
#include <activemq/threads/CompositeTaskRunner.h>
#include <activemq/state/ConnectionStateTracker.h>
#include <activemq/transport/CompositeTransport.h>
#include <activemq/transport/failover/BackupTransportPool.h>
#include <activemq/transport/failover/CloseTransportsTask.h>
#include <activemq/transport/failover/FailoverTransportListener.h>
#include <activemq/transport/failover/URIPool.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/util/StlList.h>
#include <decaf/util/StlMap.h>
#include <decaf/util/Properties.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/concurrent/atomic/AtomicReference.h>
#include <decaf/net/URI.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class `activemq::transport::failover::FailoverTransport`

### Namespaces

- namespace `activemq`

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace `activemq::transport`
- namespace `activemq::transport::failover`

## 7.127 src/main/activemq/transport/failover/FailoverTransportFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/AbstractTransportFactory.h>
#include <activemq/transport/Transport.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/net/URI.h>
#include <decaf/util/Properties.h>
```

### Data Structures

- class **activemq::transport::failover::FailoverTransportFactory**  
*Creates an instance of a **FailoverTransport** (p. 1612).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::failover**

## 7.128 src/main/activemq/transport/failover/FailoverTransportListener. File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportListener.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::transport::failover::FailoverTransportListener**  
*Utility class used by the **Transport** (p. 3273) to perform the work of responding to events from the active **Transport** (p. 3273).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::failover**

## 7.129 src/main/activemq/transport/failover/URIPool.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/net/URI.h>
#include <decaf/util/StlList.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
```

### Data Structures

- class **activemq::transport::failover::URIPool**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::failover**

## 7.130 src/main/activemq/transport/inactivity/InactivityMonitor.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/Response.h>
#include <activemq/commands/WireFormatInfo.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/Timer.h>
#include <decaf/util/Properties.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
```

### Data Structures

- class **activemq::transport::inactivity::InactivityMonitor**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::inactivity**

## 7.131 src/main/activemq/transport/inactivity/ReadChecker.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/util/TimerTask.h>
```

### Data Structures

- class **activemq::transport::inactivity::ReadChecker**  
*Runnable class that is used by the {}.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::inactivity**



## 7.132 src/main/activemq/transport/inactivity/WriteChecker.h File Reference

```
#include <activemq/util/Config.h>
```

```
#include <decaf/util/TimerTask.h>
```

### Data Structures

- class **activemq::transport::inactivity::WriteChecker**

*Runnable class used by the {}.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**
- namespace **activemq::transport::inactivity**

## 7.133 src/main/activemq/transport/IOTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/Transport.h>
#include <activemq/transport/TransportListener.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/Response.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/lang/Runnable.h>
#include <decaf/lang/Thread.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/util/logging/LoggerDefines.h>
#include <memory>
```

### Data Structures

- class **activemq::transport::IOTransport**

*Implementation of the **Transport** (p. 3273) interface that performs marshaling of commands to IO streams.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**

## 7.134 src/main/activemq/transport/logging/LoggingTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <decaf/util/logging/LoggerDefines.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::transport::logging::LoggingTransport**  
*A transport filter that logs commands as they are sent/received.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::logging**

## 7.135 src/main/activemq/transport/mock/InternalCommandListener.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/mock/ResponseBuilder.h>
#include <activemq/transport/DefaultTransportListener.h>
#include <decaf/lang/Thread.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/StlQueue.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/util/concurrent/atomic/AtomicInteger.h>
#include <decaf/util/concurrent/CountDownLatch.h>
```

### Data Structures

- class **activemq::transport::mock::InternalCommandListener**  
*Listens for Commands sent from the **MockTransport** (p. 2371).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::mock**

## 7.136 src/main/activemq/transport/mock/MockTransport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/transport/Transport.h>
#include <activemq/transport/TransportListener.h>
#include <activemq/transport/DefaultTransportListener.h>
#include <activemq/transport/mock/ResponseBuilder.h>
#include <activemq/transport/mock/InternalCommandListener.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/lang/Thread.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/StlQueue.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/util/concurrent/atomic/AtomicInteger.h>
#include <decaf/util/concurrent/CountDownLatch.h>
#include <cms/Message.h>
#include <map>
#include <set>
```

### Data Structures

- class **activemq::transport::mock::MockTransport**

*The **MockTransport** (p. 2371) defines a base level **Transport** (p. 3273) class that is intended to be used in place of an a regular protocol **Transport** (p. 3273) such as TCP.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::transport**
- namespace **activemq::transport::mock**

## 7.137 src/main/activemq/transport/mock/MockTransportFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/AbstractTransportFactory.h>
```

### Data Structures

- class **activemq::transport::mock::MockTransportFactory**  
*Manufactures MockTransports, which are objects that read from input streams and write to output streams.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::mock**

## 7.138 src/main/activemq/transport/mock/ResponseBuilder.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/Response.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/StlQueue.h>
```

### Data Structures

- class **activemq::transport::mock::ResponseBuilder**  
*Interface for all Protocols to implement that defines the behavior of the Broker in response to messages of that protocol.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**
- namespace **activemq::transport::mock**

## 7.139 src/main/activemq/transport/tcp/TcpTransport.h File Reference

```
#include <activemq/io/LoggingInputStream.h>
#include <activemq/io/LoggingOutputStream.h>
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <decaf/net/Socket.h>
#include <decaf/net/URI.h>
#include <decaf/util/Properties.h>
#include <decaf/lang/Pointer.h>
#include <decaf/io/BufferedInputStream.h>
#include <decaf/io/BufferedOutputStream.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <memory>
```

### Data Structures

- class **activemq::transport::tcp::TcpTransport**

*Implements a TCP/IP based transport filter, this transport is meant to wrap an instance of an **IOTransport** (p. 1823).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::transport**
- namespace **activemq::transport::tcp**



## 7.140 src/main/activemq/transport/tcp/TcpTransportFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/AbstractTransportFactory.h>
#include <activemq/exceptions/ActiveMQException.h>
```

### Data Structures

- class **activemq::transport::tcp::TcpTransportFactory**  
*Factory Responsible for creating the **TcpTransport** (p. 3160).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::transport**
- namespace **activemq::transport::tcp**

## 7.141 src/main/activemq/transport/Transport.h File Reference

```
#include <decaf/io/InputStream.h>
#include <decaf/io/OutputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/io/Closeable.h>
#include <decaf/net/URI.h>
#include <decaf/lang/Pointer.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <activemq/commands/Response.h>
#include <typeinfo>
```

### Data Structures

- class **activemq::transport::Transport**  
*Interface for a transport layer for command objects.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::transport**

## 7.142 src/main/activemq/transport/TransportFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/transport/Transport.h>
#include <decaf/net/URI.h>
#include <decaf/util/Properties.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::transport::TransportFactory**  
*Defines the interface for Factories that create Transports or TransportFilters.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**

## 7.143 src/main/activemq/transport/TransportFilter.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <activemq/transport/Transport.h>
#include <activemq/commands/Command.h>
#include <activemq/transport/TransportListener.h>
#include <decaf/lang/Pointer.h>
#include <typeinfo>
```

### Data Structures

- class **activemq::transport::TransportFilter**

*A filter on the transport layer.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::transport**

## 7.144 src/main/activemq/transport/TransportListener.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <decaf/lang/Exception.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::transport::TransportListener**

*A listener of asynchronous exceptions from a command transport object.*

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::transport**

## 7.145 src/main/activemq/transport/TransportRegistry.h File Reference

```
#include <activemq/util/Config.h>
#include <string>
#include <vector>
#include <activemq/transport/TransportFactory.h>
#include <decaf/util/StlMap.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **activemq::transport::TransportRegistry**  
*Registry of all **Transport** (p. 3273) Factories that are available to the client at runtime.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::transport**

## 7.146 src/main/activemq/util/ActiveMQProperties.h File Reference

```
#include <map>
#include <string>
#include <sstream>
#include <activemq/util/Config.h>
#include <cms/CMSProperties.h>
#include <decaf/util/Properties.h>
```

### Data Structures

- class **activemq::util::ActiveMQProperties**  
*Implementation of the `CMSProperties` interface that delegates to a `decaf::util::Properties` (p. 2657) object.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**

## 7.147 src/main/activemq/util/CMSExceptionSupport.h File Reference

```
#include <activemq/util/Config.h>
#include <cms/CMSException.h>
#include <cms/CMSSecurityException.h>
#include <cms/MessageEOFException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageNotReadableException.h>
#include <cms/MessageNotWriteableException.h>
#include <cms/InvalidClientIdException.h>
#include <cms/InvalidDestinationException.h>
#include <cms/InvalidSelectorException.h>
#include <cms/IllegalStateException.h>
#include <cms/UnsupportedOperationException.h>
#include <decaf/lang/Exception.h>
#include <string>
```

### Data Structures

- class **activemq::util::CMSExceptionSupport**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**

### Defines

- **#define AMQ\_CATCH\_ALL\_THROW\_CMSEXCEPTION()**  
*Macro for catching an exception of one type and then re-throwing as a Basic CMSException, good for cases where the method isn't specific about what CMS Exceptions are thrown, bad if you need to throw an exception of MessageNotReadableException for instance.*

#### 7.147.1 Define Documentation

##### 7.147.1.1 #define AMQ\_CATCH\_ALL\_THROW\_CMSEXCEPTION()

Macro for catching an exception of one type and then re-throwing as a Basic CMSException, good for cases where the method isn't specific about what CMS Exceptions are thrown, bad if you need



to throw an exception of MessageNotReadableException for instance.

```

Referenced by    activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage
>::acknowledge(),    activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage
>::clearBody(),    activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage
>::clearProperties(),    activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage
>::equals(),    activemq::commands::ActiveMQMessageTemplate< cms::ObjectMessage
>::getBooleanProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getByteProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getCMSMessageID(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getDoubleProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getFloatProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getIntProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getLongProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getPropertyNames(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getShortProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::getStringProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::propertyExists(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setBooleanProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setByteProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setCMSDestination(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setCMSReplyTo(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setDoubleProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setFloatProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setIntProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setLongProperty(),    activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setShortProperty(), and activemq::commands::ActiveMQMessageTemplate<
cms::ObjectMessage >::setStringProperty().

```

## 7.148 src/main/activemq/util/CompositeData.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/util/Properties.h>
#include <decaf/util/StlList.h>
#include <decaf/net/URI.h>
#include <decaf/net/URISyntaxException.h>
```

### Data Structures

- class **activemq::util::CompositeData**  
*Represents a Composite URI.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::util**

## 7.149 src/main/activemq/util/Config.h File Reference

### Defines

- `#define AMQCPP_API`

#### 7.149.1 Define Documentation

##### 7.149.1.1 `#define AMQCPP_API`

## 7.150 src/main/cms/Config.h File Reference

### Defines

- `#define CMS_API`

### 7.150.1 Define Documentation

#### 7.150.1.1 `#define CMS_API`

## 7.151 src/main/decaf/util/Config.h File Reference

### Defines

- `#define DECAF_API`
- `#define DECAF_UNUSED`

#### 7.151.1 Define Documentation

7.151.1.1 `#define DECAF_API`

7.151.1.2 `#define DECAF_UNUSED`

## 7.152 src/main/activemq/util/LongSequenceGenerator.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **activemq::util::LongSequenceGenerator**

*This class is used to generate a sequence of long long values that are incremented each time a new value is requested.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::util**

## 7.153 src/main/activemq/util/MemoryUsage.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/util/Usage.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **activemq::util::MemoryUsage**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::util**

## 7.154 src/main/activemq/util/PrimitiveList.h File Reference

```
#include <string>
#include <vector>
#include <decaf/util/StlList.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <stdio.h>
#include <activemq/util/PrimitiveValueNode.h>
#include <activemq/util/PrimitiveValueConverter.h>
```

### Data Structures

- class **activemq::util::PrimitiveList**  
*List of primitives.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**



## 7.155 src/main/activemq/util/PrimitiveMap.h File Reference

```
#include <string>
#include <vector>
#include <activemq/util/Config.h>
#include <decaf/util/Config.h>
#include <decaf/util/StlMap.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <activemq/util/PrimitiveValueNode.h>
#include <activemq/util/PrimitiveValueConverter.h>
```

### Data Structures

- class **activemq::util::PrimitiveMap**  
*Map of named primitives.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**

## 7.156 src/main/activemq/util/PrimitiveValueConverter.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/util/PrimitiveValueNode.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <string>
```

### Data Structures

- class **activemq::util::PrimitiveValueConverter**

*Class controls the conversion of data contained in a **PrimitiveValueNode** (p. 2555) from one type to another.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::util**

## 7.157 src/main/activemq/util/PrimitiveValueNode.h File Reference

```
#include <activemq/util/Config.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/Map.h>
#include <decaf/util/List.h>
```

### Data Structures

- class **activemq::util::PrimitiveValueNode**  
*Class that wraps around a single value of one of the many types.*
- union **activemq::util::PrimitiveValueNode::PrimitiveValue**  
*Define a union type comprised of the various types.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**

## 7.158 src/main/activemq/util/URISupport.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/util/CompositeData.h>
#include <decaf/util/Properties.h>
#include <decaf/util/StlList.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **activemq::util::URISupport**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::util**

## 7.159 src/main/activemq/util/Usage.h File Reference

```
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::util::Usage**

### Namespaces

- namespace **activemq**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **activemq::util**

## 7.160 src/main/activemq/wireformat/MarshalAware.h File Reference

```
#include <vector>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::wireformat::MarshalAware**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**

7.161

src/main/activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h

File Reference

7.161 src/main/activemq/wireformat/openwire/marshal/BaseDataStream<sup>3607</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/DataStreamMarshaller.h>
```

```
#include <activemq/wireformat/openwire/utils/HexTable.h>
```

```
#include <activemq/commands/MessageId.h>
```

```
#include <activemq/commands/ProducerId.h>
```

```
#include <activemq/commands/TransactionId.h>
```

```
#include <activemq/util/Config.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::BaseDataStreamMarshaller**  
*Base class for all Marshallers that marshal DataStructures to and from the wire using the Open-Wire protocol.*

## Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**

## 7.162 src/main/activemq/wireformat/openwire/marshal/DataStreamM File Reference

```
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq:wireformat::openwire::marshal::DataStreamMarshaller**  
*Base class for all classes that marshal commands for Openwire.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq:wireformat**
- namespace **activemq:wireformat::openwire**
- namespace **activemq:wireformat::openwire::marshal**



7.163

src/main/activemq/wireformat/openwire/marshal/PrimitiveTypesMarshaller.h File

Reference

7.163 src/main/activemq/wireformat/openwire/marshal/PrimitiveTypesMarshaller.h 3609

## File Reference

```
#include <cms/CMSException.h>
#include <activemq/util/Config.h>
#include <activemq/util/PrimitiveValueNode.h>
#include <activemq/util/PrimitiveMap.h>
#include <activemq/util/PrimitiveList.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/IOException.h>
#include <string>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::PrimitiveTypesMarshaller**

*This class wraps the functionality needed to marshal a primitive map to the Openwire Format's expectation of what the map looks like on the wire.*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**

## 7.164 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQBlobMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQBlobMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 181).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.165 src/main/activemq/wireformat/openwire/mar-  
shal/v2/ActiveMQBlobMessageMarshaller.h File

Reference

7.165 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3611</sup>/v2/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQBlobMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 193).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.166 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQBlobMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQBlobMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 177).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.167 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ActiveMQBlobMessageMarshaller.h File

Reference

7.167 <sup>3613</sup>src/main/activemq/wireformat/openwire/marsh/v4/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQBlobMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 185).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.168 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQBlobMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQBlobMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBlobMessageMarshaller** (p. 189).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.169 src/main/activemq/wireformat/openwire/marsh  
shal/v1/ActiveMQBytesMessageMarshaller.h File

Reference

7.169 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3615</sup>~~shal/v1/ActiveMQ~~  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQBytesMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 217).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.170 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQBytesMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQBytesMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 229).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.171 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQBytesMessageMarshaller.h File

Reference

7.171 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3617</sup>~~shal/v3/ActiveMQ~~  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQBytesMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 213).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.172 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQBytesMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQBytesMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 221).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.173 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQBytesMessageMarshaller.h File

Reference

7.173 <sup>3619</sup>src/main/activemq/wireformat/openwire/marsh/v5/ActiveMQ  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQBytesMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQBytesMessageMarshaller** (p. 225).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.174 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 289).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.175 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ActiveMQDestinationMarshaller.h File

Reference

7.175 <sup>3621</sup>src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 301).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.176 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 285).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.177 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ActiveMQDestinationMarshaller.h File

Reference

7.177 <sup>3623</sup>src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQDestinationMarshaller.h File Reference

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 293).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.178 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQDestinationMarshaller** (p. 297).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.179 src/main/activemq/wireformat/openwire/marsh  
shal/v1/ActiveMQMapMessageMarshaller.h File

Reference

~~7.179~~ src/main/activemq/wireformat/openwire/marsh<sup>3625</sup>al/v1/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshall/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQMapMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 326).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.180 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQMapMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQMapMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 338).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.181 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQMapMessageMarshaller.h File

Reference

~~7.181~~ ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3627</sup>~~al/v3/ActiveMQ~~

## File Reference

```
#include <activemq/wireformat/openwire/marshall/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQMapMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 322).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.182 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQMapMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQMapMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 330).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.183 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQMapMessageMarshaller.h File

Reference

7.183 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3629</sup>/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQMapMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMapMessageMarshaller** (p. 334).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.184 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 349).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.185 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ActiveMQMessageMarshaller.h File

Reference

7.185 <sup>3631</sup>src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 361).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.186 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 345).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.187 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ActiveMQMessageMarshaller.h File

Reference

7.187 <sup>3633</sup>src/main/activemq/wireformat/openwire/marsh/v4/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 353).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.188 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQMessageMarshaller** (p. 357).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.189 src/main/activemq/wireformat/openwire/marsh-  
shal/v1/ActiveMQObjectMessageMarshaller.h File

Reference

~~7.189~~ <sup>3635</sup> src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQO

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQObjectMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 390).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.190 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQObjectMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQObjectMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 402).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.191 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQObjectMessageMarshaller.h File

Reference

~~7.191~~ <sup>3637</sup>src/main/activemq/wireformat/openwire/marsh/v3/ActiveMQ  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQObjectMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 386).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.192 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQObjectMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQObjectMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 394).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.193 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQObjectMessageMarshaller.h File

Reference

7.193 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3639</sup>/v5/ActiveMQ  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQObjectMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQObjectMessageMarshaller** (p. 398).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.194 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 427).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



7.195

src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQQueueMarshaller.h

File Reference

7.195 <sup>3641</sup>src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQQueueMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for ActiveMQQueueMarshaller (p. 439).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.196 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 423).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.197

src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQQueueMarshaller.h

File Reference

7.197 <sup>3643</sup>src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQQueueMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for ActiveMQQueueMarshaller (p. 431).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.198 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQQueueMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQQueueMarshaller** (p. 435).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.199 src/main/activemq/wireformat/openwire/marsh-  
shal/v1/ActiveMQStreamMessageMarshaller.h File

Reference

~~7.199~~ <sup>3645</sup> src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQS  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQStreamMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 483).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.200 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQS File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQStreamMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 495).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.201 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQStreamMessageMarshaller.h File

Reference

7.201 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3647</sup>/ActiveMQS

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQStreamMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 479).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.202 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQS File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQStreamMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 487).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.203 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQStreamMessageMarshaller.h File

Reference

7.203 <sup>3649</sup>src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQS  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQStreamMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQStreamMessageMarshaller** (p. 491).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.204 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQTempDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 507).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.205 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ActiveMQTempDestinationMarshaller.h File

Reference

7.205 <sup>3651</sup>src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQTempDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 519).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.206 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQTempDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 503).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.207 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ActiveMQTempDestinationMarshaller.h File

Reference

7.207 <sup>3653</sup>src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h File

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQTempDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 511).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.208 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempDestinationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQTempDestinationMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempDestinationMarshaller** (p. 515).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.209 src/main/activemq/wireformat/openwire/marsh  
shal/v1/ActiveMQTempQueueMarshaller.h File

Reference

7.209 <sup>3655</sup>src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQTempQueueMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 532).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.210 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTempQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQTempQueueMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 544).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.211 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQTempQueueMarshaller.h File

Reference

~~7.211~~ <sup>3657</sup>src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQTempQueueMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 528).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.212 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTempQueueMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQTempQueueMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 536).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.213 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQTempQueueMarshaller.h File

Reference

7.213 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3659</sup>/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQTempQueueMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempQueueMarshaller** (p. 540).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.214 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTempTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQTempTopicMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 557).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.215 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ActiveMQTempTopicMarshaller.h File

Reference

7.215 <sup>3661</sup>src/main/activemq/wireformat/openwire/marsh/v2/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQTempTopicMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 569).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.216 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTempTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQTempTopicMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 553).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.217 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ActiveMQTempTopicMarshaller.h File

Reference

7.217 <sup>3663</sup>src/main/activemq/wireformat/openwire/marsh/v4/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQTempTopicMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 561).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.218 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTempTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ActiveMQTempDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQTempTopicMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTempTopicMarshaller** (p. 565).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.219 src/main/activemq/wireformat/openwire/marsh  
shal/v1/ActiveMQTextMessageMarshaller.h File

Reference

~~7.219~~ <sup>3665</sup> src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQ  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQTextMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 582).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.220 src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTextMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQTextMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 594).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.221 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ActiveMQTextMessageMarshaller.h File

Reference

7.221 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3667</sup>/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQTextMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 578).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.222 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTextMessageMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQTextMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 586).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.223 src/main/activemq/wireformat/openwire/marsh  
shal/v5/ActiveMQTextMessageMarshaller.h File

Reference

7.223 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3669</sup>/ActiveMQ

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/MessageMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQTextMessageMarshaller**

*Marshaling code for Open Wire Format for **ActiveMQTextMessageMarshaller** (p. 590).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.224 src/main/activemq/wireformat/openwire/marshal/v1/ActiveMQTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 606).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.225

src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTopicMarshaller.h

File Reference

7.225 <sup>3671</sup> src/main/activemq/wireformat/openwire/marshal/v2/ActiveMQTopicMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 618).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.226 src/main/activemq/wireformat/openwire/marshal/v3/ActiveMQTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 602).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.227

src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQTopicMarshaller.h

File Reference

7.227 src/main/activemq/wireformat/openwire/marshal/v4/ActiveMQ<sup>3673</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 610).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.228 src/main/activemq/wireformat/openwire/marshal/v5/ActiveMQTopicMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ActiveMQDestinationMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ActiveMQTopicMarshaller**  
*Marshaling code for Open Wire Format for **ActiveMQTopicMarshaller** (p. 614).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.229

src/main/activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h

File Reference

7.229 src/main/activemq/wireformat/openwire/marshal/v1/BaseComm<sup>3675</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 664).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.230 src/main/activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 685).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.231

src/main/activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h

File Reference

~~7.231~~ <sup>3677</sup> src/main/activemq/wireformat/openwire/marshal/v3/BaseComm

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 657).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.232 src/main/activemq/wireformat/openwire/marshal/v4/BaseComm File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 671).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.233

src/main/activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h

File Reference

7.233 src/main/activemq/wireformat/openwire/marshal/v5/BaseComm<sup>3679</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::BaseCommandMarshaller**  
*Marshaling code for Open Wire Format for **BaseCommandMarshaller** (p. 678).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.234 src/main/activemq/wireformat/openwire/marshal/v1/BrokerIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::BrokerIdMarshaller**  
*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 759).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



## 7.235 src/main/activemq/wireformat/openwire/marshal/v2/BrokerIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::BrokerIdMarshaller**  
*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 771).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.236 src/main/activemq/wireformat/openwire/marshal/v3/BrokerIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::BrokerIdMarshaller**  
*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 755).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.237 src/main/activemq/wireformat/openwire/marshal/v4/BrokerIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::BrokerIdMarshaller**  
*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 763).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.238 src/main/activemq/wireformat/openwire/marshal/v5/BrokerIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::BrokerIdMarshaller**  
*Marshaling code for Open Wire Format for **BrokerIdMarshaller** (p. 767).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.239 src/main/activemq/wireformat/openwire/marshal/v1/BrokerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::BrokerInfoMarshaller**  
*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 787).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.240 src/main/activemq/wireformat/openwire/marshal/v2/BrokerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::BrokerInfoMarshaller**  
*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 799).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.241 src/main/activemq/wireformat/openwire/marshal/v3/BrokerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::BrokerInfoMarshaller**  
*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 783).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.242 src/main/activemq/wireformat/openwire/marshal/v4/BrokerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::BrokerInfoMarshaller**  
*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 791).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



## 7.243 src/main/activemq/wireformat/openwire/marshal/v5/BrokerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::BrokerInfoMarshaller**  
*Marshaling code for Open Wire Format for **BrokerInfoMarshaller** (p. 795).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.244 src/main/activemq/wireformat/openwire/marshal/v1/ConnectionControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1144).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.245 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ConnectionControlMarshaller.h File

Reference

7.245 <sup>3691</sup>src/main/activemq/wireformat/openwire/marsh/v2/Connection  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1156).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.246 src/main/activemq/wireformat/openwire/marshal/v3/ConnectionControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1140).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.247 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ConnectionControlMarshaller.h File

Reference

7.247 <sup>3693</sup>src/main/activemq/wireformat/openwire/marshal/v4/Connection  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1148).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.248 src/main/activemq/wireformat/openwire/marshal/v5/ConnectionControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConnectionControlMarshaller**

*Marshaling code for Open Wire Format for **ConnectionControlMarshaller** (p. 1152).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.249

src/main/activemq/wireformat/openwire/marshal/v1/ConnectionErrorMarshaller.h

File Reference

7.249 src/main/activemq/wireformat/openwire/marshal/v1/ConnectionErrorMarshaller.h 3695

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConnectionErrorMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1168).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.250 src/main/activemq/wireformat/openwire/marshal/v2/ConnectionErrorMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConnectionErrorMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1180).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.251

src/main/activemq/wireformat/openwire/marshal/v3/ConnectionErrorMarshaller.h

File Reference

7.251 src/main/activemq/wireformat/openwire/marshal/v3/ConnectionErrorMarshaller.h 3697

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConnectionErrorMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1164).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.252 src/main/activemq/wireformat/openwire/marshal/v4/ConnectionErrorMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConnectionErrorMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1172).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.253

src/main/activemq/wireformat/openwire/marshal/v5/ConnectionErrorMarshaller.h

File Reference

7.253 src/main/activemq/wireformat/openwire/marshal/v5/ConnectionErrorMarshaller.h 3699

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConnectionErrorMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionErrorMarshaller** (p. 1176).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.254 src/main/activemq/wireformat/openwire/marshal/v1/ConnectionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConnectionIdMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1195).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.255

src/main/activemq/wireformat/openwire/marshal/v2/ConnectionIdMarshaller.h

File Reference

7.255 src/main/activemq/wireformat/openwire/marshal/v2/Connection<sup>3701</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConnectionIdMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1207).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.256 src/main/activemq/wireformat/openwire/marshal/v3/ConnectionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConnectionIdMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1191).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.257

src/main/activemq/wireformat/openwire/marshal/v4/ConnectionIdMarshaller.h

File Reference

7.257 src/main/activemq/wireformat/openwire/marshal/v4/ConnectionIdMarshaller.h 3703

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConnectionIdMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1199).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.258 src/main/activemq/wireformat/openwire/marshal/v5/ConnectionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConnectionIdMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionIdMarshaller** (p. 1203).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.259

src/main/activemq/wireformat/openwire/marshal/v1/ConnectionInfoMarshaller.h

File Reference

7.259 src/main/activemq/wireformat/openwire/marshal/v1/Connection

3705

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConnectionInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1225).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.260 src/main/activemq/wireformat/openwire/marshal/v2/ConnectionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConnectionInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1233).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.261

src/main/activemq/wireformat/openwire/marshal/v3/ConnectionInfoMarshaller.h

File Reference

7.261 <sup>3707</sup>src/main/activemq/wireformat/openwire/marshal/v3/Connection

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConnectionInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1217).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.262 src/main/activemq/wireformat/openwire/marshal/v4/ConnectionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConnectionInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1221).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.263

src/main/activemq/wireformat/openwire/marshal/v5/ConnectionInfoMarshaller.h

File Reference

7.263 src/main/activemq/wireformat/openwire/marshal/v5/ConnectionInfoMarshaller.h 3709

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConnectionInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConnectionInfoMarshaller** (p. 1229).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.264 src/main/activemq/wireformat/openwire/marshal/v1/ConsumerControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1263).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.265 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ConsumerControlMarshaller.h File

Reference

7.265 src/main/activemq/wireformat/openwire/marsh<sup>3711</sup>/v2/ConsumerC  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1271).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.266 src/main/activemq/wireformat/openwire/marshal/v3/ConsumerControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1255).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.267 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ConsumerControlMarshaller.h File

Reference

7.267 <sup>3713</sup>src/main/activemq/wireformat/openwire/marsh/v4/ConsumerC

## File Reference

```
#include <activemq/wireformat/openwire/marshall/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1259).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.268 src/main/activemq/wireformat/openwire/marshal/v5/ConsumerControlMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConsumerControlMarshaller**

*Marshaling code for Open Wire Format for **ConsumerControlMarshaller** (p. 1267).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.269

src/main/activemq/wireformat/openwire/marshal/v1/ConsumerIdMarshaller.h File

Reference

7.269 <sup>3715</sup>src/main/activemq/wireformat/openwire/marshal/v1/ConsumerIdMarshaller.h File Reference

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConsumerIdMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1288).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.270 src/main/activemq/wireformat/openwire/marshal/v2/ConsumerIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConsumerIdMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1296).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.271

src/main/activemq/wireformat/openwire/marshal/v3/ConsumerIdMarshaller.h File

Reference

7.271 <sup>3717</sup>src/main/activemq/wireformat/openwire/marshal/v3/ConsumerId

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConsumerIdMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1280).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.272 src/main/activemq/wireformat/openwire/marshal/v4/ConsumerIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConsumerIdMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1284).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.273

src/main/activemq/wireformat/openwire/marshal/v5/ConsumerIdMarshaller.h File

Reference

7.273 src/main/activemq/wireformat/openwire/marshal/v5/ConsumerIdMarshaller.h 3719

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConsumerIdMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerIdMarshaller** (p. 1292).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.274 src/main/activemq/wireformat/openwire/marshal/v1/ConsumerInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ConsumerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1313).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



7.275

src/main/activemq/wireformat/openwire/marshal/v2/ConsumerInfoMarshaller.h

File Reference

7.275 src/main/activemq/wireformat/openwire/marshal/v2/ConsumerInfoMarshaller.h<sup>3721</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ConsumerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1325).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.276 src/main/activemq/wireformat/openwire/marshal/v3/ConsumerInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ConsumerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1309).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.277

src/main/activemq/wireformat/openwire/marshal/v4/ConsumerInfoMarshaller.h

File Reference

7.277 src/main/activemq/wireformat/openwire/marshal/v4/ConsumerInfoMarshaller.h 3723

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ConsumerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1317).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.278 src/main/activemq/wireformat/openwire/marshal/v5/ConsumerInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ConsumerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ConsumerInfoMarshaller** (p. 1321).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.279 src/main/activemq/wireformat/openwire/marsh  
shal/v1/ControlCommandMarshaller.h File

Reference

7.279 <sup>3725</sup>src/main/activemq/wireformat/openwire/marshal/v1/ControlCo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1342).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.280 src/main/activemq/wireformat/openwire/marshal/v2/ControlCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1350).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.281 src/main/activemq/wireformat/openwire/marsh  
shal/v3/ControlCommandMarshaller.h File

Reference

7.281 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3727</sup>/v3/ControlCo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1334).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.282 src/main/activemq/wireformat/openwire/marshal/v4/ControlCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1338).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.283 src/main/activemq/wireformat/openwire/mar-  
shal/v5/ControlCommandMarshaller.h File

Reference

7.283 src/main/activemq/wireformat/openwire/marsh<sup>3729</sup>/v5/ControlCo

## File Reference

```
#include <activemq/wireformat/openwire/marshall/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ControlCommandMarshaller**

*Marshaling code for Open Wire Format for **ControlCommandMarshaller** (p. 1346).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.284 src/main/activemq/wireformat/openwire/marshal/v1/DataArray File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1367).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.285 src/main/activemq/wireformat/openwire/marsh  
shal/v2/DataArrayResponseMarshaller.h File

Reference

7.285 <sup>3731</sup>src/main/activemq/wireformat/openwire/marsh/v2/DataArray  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1375).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.286 src/main/activemq/wireformat/openwire/marshal/v3/DataArray File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1359).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.287 src/main/activemq/wireformat/openwire/marsh  
shal/v4/DataArrayResponseMarshaller.h File

Reference

7.287 <sup>3733</sup>src/main/activemq/wireformat/openwire/marsh/v4/DataArray  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1363).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.288 src/main/activemq/wireformat/openwire/marshal/v5/DataArray File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::DataArrayResponseMarshaller**

*Marshaling code for Open Wire Format for **DataArrayResponseMarshaller** (p. 1371).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.289

src/main/activemq/wireformat/openwire/marshal/v1/DataResponseMarshaller.h

File Reference

7.289 src/main/activemq/wireformat/openwire/marshal/v1/DataResponseMarshaller.h 3735

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::DataResponseMarshaller**  
*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1402).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.290 src/main/activemq/wireformat/openwire/marshal/v2/DataResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::DataResponseMarshaller**  
*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1414).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.291

src/main/activemq/wireformat/openwire/marshal/v3/DataResponseMarshaller.h

File Reference

7.291 <sup>3737</sup>src/main/activemq/wireformat/openwire/marshal/v3/DataResponse

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::DataResponseMarshaller**  
*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1398).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.292 src/main/activemq/wireformat/openwire/marshal/v4/DataResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::DataResponseMarshaller**  
*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1410).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.293

src/main/activemq/wireformat/openwire/marshal/v5/DataResponseMarshaller.h

File Reference

7.293 src/main/activemq/wireformat/openwire/marshal/v5/DataResponseMarshaller.h 3739

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::DataResponseMarshaller**  
*Marshaling code for Open Wire Format for **DataResponseMarshaller** (p. 1406).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.294 src/main/activemq/wireformat/openwire/marshal/v1/DestinationInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::DestinationInfoMarshaller**  
*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1501).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.295

src/main/activemq/wireformat/openwire/marshal/v2/DestinationInfoMarshaller.h

File Reference

7.295 <sup>3741</sup>src/main/activemq/wireformat/openwire/marshal/v2/Destination

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::DestinationInfoMarshaller**  
*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1489).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.296 src/main/activemq/wireformat/openwire/marshal/v3/DestinationInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::DestinationInfoMarshaller**  
*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1493).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.297

src/main/activemq/wireformat/openwire/marshal/v4/DestinationInfoMarshaller.h

File Reference

7.297 src/main/activemq/wireformat/openwire/marshal/v4/DestinationInfoMarshaller.h 3743

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::DestinationInfoMarshaller**  
*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1497).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.298 src/main/activemq/wireformat/openwire/marshal/v5/DestinationInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::DestinationInfoMarshaller**  
*Marshaling code for Open Wire Format for **DestinationInfoMarshaller** (p. 1505).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.299

src/main/activemq/wireformat/openwire/marshal/v1/DiscoveryEventMarshaller.h

File Reference

7.299 src/main/activemq/wireformat/openwire/marshal/v1/DiscoveryE<sup>3745</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::DiscoveryEventMarshaller**  
*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1531).*

## Namespaces

- namespace **activemq**  
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*ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.300 src/main/activemq/wireformat/openwire/marshal/v2/DiscoveryEventMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::DiscoveryEventMarshaller**  
*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1515).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.301

src/main/activemq/wireformat/openwire/marshal/v3/DiscoveryEventMarshaller.h

File Reference

7.301 <sup>3747</sup>src/main/activemq/wireformat/openwire/marshal/v3/DiscoveryE

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::DiscoveryEventMarshaller**  
*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1519).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.302 src/main/activemq/wireformat/openwire/marshal/v4/DiscoveryEventMarshall.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::DiscoveryEventMarshaller**  
*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1523).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.303

src/main/activemq/wireformat/openwire/marshal/v5/DiscoveryEventMarshaller.h

File Reference

7.303 src/main/activemq/wireformat/openwire/marshal/v5/DiscoveryE<sup>3749</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::DiscoveryEventMarshaller**  
*Marshaling code for Open Wire Format for **DiscoveryEventMarshaller** (p. 1527).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.304 src/main/activemq/wireformat/openwire/marshal/v1/ExceptionResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1589).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.305 src/main/activemq/wireformat/openwire/marsh  
shal/v2/ExceptionResponseMarshaller.h File

Reference

7.305 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3751</sup>/v2/ExceptionR  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1585).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.306 src/main/activemq/wireformat/openwire/marshal/v3/ExceptionResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1593).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.307 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ExceptionResponseMarshaller.h File

Reference

7.307 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3753</sup>~~shal/v4/Exception~~

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1597).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.308 src/main/activemq/wireformat/openwire/marshal/v5/ExceptionResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ExceptionResponseMarshaller**

*Marshaling code for Open Wire Format for **ExceptionResponseMarshaller** (p. 1601).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.309

src/main/activemq/wireformat/openwire/marshal/v1/FlushCommandMarshaller.h

File Reference

7.309 src/main/activemq/wireformat/openwire/marshal/v1/FlushCom<sup>3755</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::FlushCommandMarshaller**  
*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1683).*

## Namespaces

- namespace **activemq**  
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*ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.310 src/main/activemq/wireformat/openwire/marshal/v2/FlushCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::FlushCommandMarshaller**  
*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1679).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.311

src/main/activemq/wireformat/openwire/marshal/v3/FlushCommandMarshaller.h

File Reference

7.311 <sup>3757</sup>src/main/activemq/wireformat/openwire/marshal/v3/FlushCommand

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
```

```
#include <decaf/io/DataInputStream.h>
```

```
#include <decaf/io/DataOutputStream.h>
```

```
#include <decaf/io/IOException.h>
```

```
#include <activemq/util/Config.h>
```

```
#include <activemq/commands/DataStructure.h>
```

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

```
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::FlushCommandMarshaller**

*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1687).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.312 src/main/activemq/wireformat/openwire/marshal/v4/FlushCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::FlushCommandMarshaller**  
*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1691).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.313

src/main/activemq/wireformat/openwire/marshal/v5/FlushCommandMarshaller.h

File Reference

7.313 src/main/activemq/wireformat/openwire/marshal/v5/FlushCommandMarshaller.h 3759

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::FlushCommandMarshaller**  
*Marshaling code for Open Wire Format for **FlushCommandMarshaller** (p. 1695).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.314 src/main/activemq/wireformat/openwire/marshal/v1/IntegerRes File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::IntegerResponseMarshaller**  
*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1784).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



7.315

src/main/activemq/wireformat/openwire/marshal/v2/IntegerResponseMarshaller.h

File Reference

7.315 <sup>3761</sup>src/main/activemq/wireformat/openwire/marshal/v2/IntegerRes

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::IntegerResponseMarshaller**  
*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1780).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.316 src/main/activemq/wireformat/openwire/marshal/v3/IntegerRes File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::IntegerResponseMarshaller**  
*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1788).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.317

src/main/activemq/wireformat/openwire/marshal/v4/IntegerResponseMarshaller.h

File Reference

7.317 <sup>3763</sup>src/main/activemq/wireformat/openwire/marshal/v4/IntegerRes

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::IntegerResponseMarshaller**  
*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1792).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.318 src/main/activemq/wireformat/openwire/marshal/v5/IntegerRes File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::IntegerResponseMarshaller**  
*Marshaling code for Open Wire Format for **IntegerResponseMarshaller** (p. 1796).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.319 src/main/activemq/wireformat/openwire/marsh-  
shal/v1/JournalQueueAckMarshaller.h File

Reference

7.319 <sup>3765</sup>src/main/activemq/wireformat/openwire/marshal/v1/JournalQueueAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::JournalQueueAckMarshaller**

*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1850).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.320 src/main/activemq/wireformat/openwire/marshal/v2/JournalQueueAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::JournalQueueAckMarshaller**

*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1838).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.321 src/main/activemq/wireformat/openwire/marsh-  
shal/v3/JournalQueueAckMarshaller.h File

Reference

7.321 <sup>3767</sup>src/main/activemq/wireformat/openwire/marshal/v3/JournalQueueAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::JournalQueueAckMarshaller**

*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1846).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.322 src/main/activemq/wireformat/openwire/marshal/v4/JournalQueueAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::JournalQueueAckMarshaller**

*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1842).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.323 src/main/activemq/wireformat/openwire/marsh-  
shal/v5/JournalQueueAckMarshaller.h File

Reference

7.323 <sup>3769</sup>src/main/activemq/wireformat/openwire/marshal/v5/JournalQueueAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::JournalQueueAckMarshaller**

*Marshaling code for Open Wire Format for **JournalQueueAckMarshaller** (p. 1854).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.324 src/main/activemq/wireformat/openwire/marshal/v1/JournalTopicAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1867).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.325 src/main/activemq/wireformat/openwire/marsh-  
shal/v2/JournalTopicAckMarshaller.h File

Reference

7.325 src/main/activemq/wireformat/openwire/marsh<sup>3771</sup>/v2/JournalTop

## File Reference

```
#include <activemq/wireformat/openwire/marshall/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1863).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.326 src/main/activemq/wireformat/openwire/marshal/v3/JournalTopicAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1871).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.327 src/main/activemq/wireformat/openwire/marsh-  
shal/v4/JournalTopicAckMarshaller.h File

Reference

7.327 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3773</sup>/v4/JournalTop

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1875).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.328 src/main/activemq/wireformat/openwire/marshal/v5/JournalTopicAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::JournalTopicAckMarshaller**  
*Marshaling code for Open Wire Format for **JournalTopicAckMarshaller** (p. 1879).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.329

src/main/activemq/wireformat/openwire/marshal/v1/JournalTraceMarshaller.h

File Reference

7.329 <sup>3775</sup> src/main/activemq/wireformat/openwire/marshal/v1/JournalTrace

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1898).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.330 src/main/activemq/wireformat/openwire/marshal/v2/JournalTraceMarshall.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1886).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.331

src/main/activemq/wireformat/openwire/marshal/v3/JournalTraceMarshaller.h

File Reference

~~7.331~~ <sup>3777</sup> src/main/activemq/wireformat/openwire/marshal/v3/JournalTraceMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1894).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.332 src/main/activemq/wireformat/openwire/marshal/v4/JournalTrace File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1890).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.333

src/main/activemq/wireformat/openwire/marshal/v5/JournalTraceMarshaller.h

File Reference

7.333 src/main/activemq/wireformat/openwire/marshal/v5/JournalTra<sup>3779</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::JournalTraceMarshaller**  
*Marshaling code for Open Wire Format for **JournalTraceMarshaller** (p. 1902).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.334 src/main/activemq/wireformat/openwire/marshal/v1/JournalTransactionMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::JournalTransactionMarshaller**

*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1922).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.335 src/main/activemq/wireformat/openwire/marsh-  
shal/v2/JournalTransactionMarshaller.h File

Reference

~~7.335~~ <sup>3781</sup>src/main/activemq/wireformat/openwire/marshal/v2/JournalTra  
File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::JournalTransactionMarshaller**

*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1910).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.336 src/main/activemq/wireformat/openwire/marshal/v3/JournalTransactionMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::JournalTransactionMarshaller**

*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1914).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.337 src/main/activemq/wireformat/openwire/marsh  
shal/v4/JournalTransactionMarshaller.h File

Reference

7.337 <sup>3783</sup>src/main/activemq/wireformat/openwire/marshal/v4/JournalTra

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::JournalTransactionMarshaller**

*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1918).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.338 src/main/activemq/wireformat/openwire/marshal/v5/JournalTransactionMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::JournalTransactionMarshaller**

*Marshaling code for Open Wire Format for **JournalTransactionMarshaller** (p. 1926).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.339

src/main/activemq/wireformat/openwire/marshal/v1/KeepAliveInfoMarshaller.h

File Reference

7.339 <sup>3785</sup> src/main/activemq/wireformat/openwire/marshal/v1/KeepAliveInfoMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1949).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.340 src/main/activemq/wireformat/openwire/marshal/v2/KeepAliveInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1933).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.341

src/main/activemq/wireformat/openwire/marshal/v3/KeepAliveInfoMarshaller.h

File Reference

7.341 <sup>3787</sup>src/main/activemq/wireformat/openwire/marshal/v3/KeepAliveInfoMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1941).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.342 src/main/activemq/wireformat/openwire/marshal/v4/KeepAliveInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1945).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.343

src/main/activemq/wireformat/openwire/marshal/v5/KeepAliveInfoMarshaller.h

File Reference

7.343 src/main/activemq/wireformat/openwire/marshal/v5/KeepAliveInfoMarshaller.h 3789

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::KeepAliveInfoMarshaller**  
*Marshaling code for Open Wire Format for **KeepAliveInfoMarshaller** (p. 1937).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.344 src/main/activemq/wireformat/openwire/marshal/v1/LastPartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/PartialCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::LastPartialCommandMarshaller**

*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1965).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.345 src/main/activemq/wireformat/openwire/marsh  
shal/v2/LastPartialCommandMarshaller.h File

Reference

7.345 src/main/activemq/wireformat/openwire/marsh<sup>3791</sup>  
shal/v2/LastPartial

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/PartialCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::LastPartialCommandMarshaller**

*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1961).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.346 src/main/activemq/wireformat/openwire/marshal/v3/LastPartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/PartialCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::LastPartialCommandMarshaller**

*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1969).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.347 src/main/activemq/wireformat/openwire/marsh  
shal/v4/LastPartialCommandMarshaller.h File

Reference

7.347 src/main/activemq/wireformat/openwire/marsh<sup>3793</sup>shal/v4/LastPartial

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/PartialCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::LastPartialCommandMarshaller**

*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1973).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.348 src/main/activemq/wireformat/openwire/marshal/v5/LastPartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/PartialCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::LastPartialCommandMarshaller**

*Marshaling code for Open Wire Format for **LastPartialCommandMarshaller** (p. 1977).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.349 src/main/activemq/wireformat/openwire/marsh  
shal/v1/LocalTransactionIdMarshaller.h File

Reference

7.349 <sup>3795</sup>src/main/activemq/wireformat/openwire/marshal/v1/LocalTrans  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::LocalTransactionIdMarshaller**

*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2009).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.350 src/main/activemq/wireformat/openwire/marshal/v2/LocalTransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::LocalTransactionIdMarshaller**

*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 1997).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.351 src/main/activemq/wireformat/openwire/marsh  
shal/v3/LocalTransactionIdMarshaller.h File

Reference

7.351 src/main/activemq/wireformat/openwire/marsh<sup>3797</sup>/v3/LocalTrans

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::LocalTransactionIdMarshaller**

*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2001).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.352 src/main/activemq/wireformat/openwire/marshal/v4/LocalTransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::LocalTransactionIdMarshaller**

*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2005).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.353 src/main/activemq/wireformat/openwire/marsh  
shal/v5/LocalTransactionIdMarshaller.h File

Reference

7.353 src/main/activemq/wireformat/openwire/marsh<sup>3799</sup>/v5/LocalTrans

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::LocalTransactionIdMarshaller**

*Marshaling code for Open Wire Format for **LocalTransactionIdMarshaller** (p. 2013).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.354 src/main/activemq/wireformat/openwire/marshal/v1/Marshaller File Reference

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MarshallerFactory**

*Used to create marshallers for a specific version of the wire protocol.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



## 7.355 src/main/activemq/wireformat/openwire/marshal/v2/MarshallerFactory.h File Reference

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.356 src/main/activemq/wireformat/openwire/marshal/v3/Marshaller File Reference

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MarshallerFactory**

*Used to create marshallers for a specific version of the wire protocol.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.357 src/main/activemq/wireformat/openwire/marshal/v4/MarshallerFactory.h File Reference

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MarshallerFactory**  
*Used to create marshallers for a specific version of the wire protocol.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.358 src/main/activemq/wireformat/openwire/marshal/v5/Marshaller File Reference

```
#include <activemq/wireformat/openwire/OpenWireFormat.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MarshallerFactory**

*Used to create marshallers for a specific version of the wire protocol.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.359

src/main/activemq/wireformat/openwire/marshal/v1/MessageAckMarshaller.h File

Reference

7.359 src/main/activemq/wireformat/openwire/marshal/v1/MessageAckMarshaller.h 3805

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2210).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.360 src/main/activemq/wireformat/openwire/marshal/v2/MessageAck File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2194).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.361

src/main/activemq/wireformat/openwire/marshal/v3/MessageAckMarshaller.h File

Reference

7.361 <sup>3807</sup>src/main/activemq/wireformat/openwire/marshal/v3/MessageAck

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2202).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.362 src/main/activemq/wireformat/openwire/marshal/v4/MessageAck File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2206).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.363

src/main/activemq/wireformat/openwire/marshal/v5/MessageAckMarshaller.h File

Reference

7.363 src/main/activemq/wireformat/openwire/marshal/v5/MessageAckMarshaller.h 3809

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessageAckMarshaller**  
*Marshaling code for Open Wire Format for **MessageAckMarshaller** (p. 2198).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.364 src/main/activemq/wireformat/openwire/marshal/v1/MessageDispatchMarshall.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessageDispatchMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2243).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.365 src/main/activemq/wireformat/openwire/mar-  
shal/v2/MessageDispatchMarshaller.h File

Reference

7.365 src/main/activemq/wireformat/openwire/marsh<sup>3811</sup>/v2/MessageDi  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessageDispatchMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2231).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.366 src/main/activemq/wireformat/openwire/marshal/v3/MessageDispatchMarshall.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessageDispatchMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2239).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.367 src/main/activemq/wireformat/openwire/marsh  
shal/v4/MessageDispatchMarshaller.h File

Reference

7.367 src/main/activemq/wireformat/openwire/marsh<sup>3813</sup>/v4/MessageDi

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessageDispatchMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2235).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.368 src/main/activemq/wireformat/openwire/marshal/v5/MessageDispatchMarshall.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessageDispatchMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchMarshaller** (p. 2247).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.369 src/main/activemq/wireformat/openwire/mar-  
shal/v1/MessageDispatchNotificationMarshaller.h File

Reference

7.369 <sup>3815</sup>src/main/activemq/wireformat/openwire/marsh/v1/MessageDi  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessageDispatchNotificationMarshaller**

*Marshaling code for Open Wire Format for MessageDispatchNotificationMarshaller*  
(p. 2269).

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.370 src/main/activemq/wireformat/openwire/marshal/v2/MessageDispatchNotificationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessageDispatchNotificationMarshaller**

*Marshaling code for Open Wire Format for MessageDispatchNotificationMarshaller (p. 2257).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.371 src/main/activemq/wireformat/openwire/mar-  
shal/v3/MessageDispatchNotificationMarshaller.h File

Reference

7.371 src/main/activemq/wireformat/openwire/marsh<sup>3817</sup>/v3/MessageDi  
File Reference

```
#include <activemq/wireformat/openwire/marshall/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessageDispatchNotificationMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller**  
(p. 2265).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.372 src/main/activemq/wireformat/openwire/marshal/v4/MessageDispatchNotificationMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessageDispatchNotificationMarshaller**

*Marshaling code for Open Wire Format for MessageDispatchNotificationMarshaller (p. 2261).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.373 src/main/activemq/wireformat/openwire/marsh  
shal/v5/MessageDispatchNotificationMarshaller.h File

Reference

7.373 src/main/activemq/wireformat/openwire/marsh<sup>3819</sup>/v5/MessageDi  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessageDispatchNotificationMarshaller**

*Marshaling code for Open Wire Format for **MessageDispatchNotificationMarshaller**  
(p. 2273).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.374 src/main/activemq/wireformat/openwire/marshal/v1/MessageId. File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2300).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.375 src/main/activemq/wireformat/openwire/marshal/v2/MessageIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2284).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.376 src/main/activemq/wireformat/openwire/marshal/v3/MessageId. File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2292).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.377 src/main/activemq/wireformat/openwire/marshal/v4/MessageIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2288).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.378 src/main/activemq/wireformat/openwire/marshal/v5/MessageId. File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessageIdMarshaller**  
*Marshaling code for Open Wire Format for **MessageIdMarshaller** (p. 2296).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



## 7.379 src/main/activemq/wireformat/openwire/marshal/v1/MessageM File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2325).*

### Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.380 src/main/activemq/wireformat/openwire/marshal/v2/MessageM File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2305).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.381 src/main/activemq/wireformat/openwire/marshal/v3/MessageM File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2315).*

### Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.382 src/main/activemq/wireformat/openwire/marshal/v4/MessageM File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2310).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.383 src/main/activemq/wireformat/openwire/marshal/v5/MessageM File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessageMarshaller**  
*Marshaling code for Open Wire Format for **MessageMarshaller** (p. 2320).*

### Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.384 src/main/activemq/wireformat/openwire/marshal/v1/MessagePullMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2359).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.385

src/main/activemq/wireformat/openwire/marshal/v2/MessagePullMarshaller.h

File Reference

7.385 <sup>3831</sup> src/main/activemq/wireformat/openwire/marshal/v2/MessagePullMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2351).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.386 src/main/activemq/wireformat/openwire/marshal/v3/MessagePullMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2355).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.387

src/main/activemq/wireformat/openwire/marshal/v4/MessagePullMarshaller.h

File Reference

7.387 src/main/activemq/wireformat/openwire/marshal/v4/MessagePu<sup>3833</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2367).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.388 src/main/activemq/wireformat/openwire/marshal/v5/MessagePullMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::MessagePullMarshaller**  
*Marshaling code for Open Wire Format for **MessagePullMarshaller** (p. 2363).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.389 src/main/activemq/wireformat/openwire/mar-  
shal/v1/NetworkBridgeFilterMarshaller.h File

Reference

7.389 <sup>3835</sup>src/main/activemq/wireformat/openwire/marsh/v1/NetworkBr

## File Reference

```
#include <activemq/wireformat/openwire/marshall/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::NetworkBridgeFilterMarshaller**

*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2409).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.390 src/main/activemq/wireformat/openwire/marshal/v2/NetworkBridgeFilterMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::NetworkBridgeFilterMarshaller**

*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2397).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.391 src/main/activemq/wireformat/openwire/marsh  
shal/v3/NetworkBridgeFilterMarshaller.h File

Reference

7.391 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3837</sup>/v3/NetworkBr

## File Reference

```
#include <activemq/wireformat/openwire/marshall/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::NetworkBridgeFilterMarshaller**

*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2401).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.392 src/main/activemq/wireformat/openwire/marshal/v4/NetworkBridgeFilterMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::NetworkBridgeFilterMarshaller**

*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2413).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.393 src/main/activemq/wireformat/openwire/marsh  
shal/v5/NetworkBridgeFilterMarshaller.h File

Reference

7.393 src/main/activemq/wireformat/openwire/marsh<sup>3839</sup>/v5/NetworkBr

## File Reference

```
#include <activemq/wireformat/openwire/marshall/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::NetworkBridgeFilterMarshaller**

*Marshaling code for Open Wire Format for **NetworkBridgeFilterMarshaller** (p. 2405).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.394 src/main/activemq/wireformat/openwire/marshal/v1/PartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::PartialCommandMarshaller**

*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2489).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



7.395 src/main/activemq/wireformat/openwire/marsh-  
shal/v2/PartialCommandMarshaller.h File

Reference

7.395 <sup>3841</sup>src/main/activemq/wireformat/openwire/marshal/v2/PartialCon  
File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::PartialCommandMarshaller**

*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2477).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.396 src/main/activemq/wireformat/openwire/marshal/v3/PartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::PartialCommandMarshaller**

*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2481).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.397 src/main/activemq/wireformat/openwire/marsh  
shal/v4/PartialCommandMarshaller.h File

Reference

7.397 <sup>3843</sup>src/main/activemq/wireformat/openwire/marshal/v4/PartialCon  
File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::PartialCommandMarshaller**

*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2485).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.398 src/main/activemq/wireformat/openwire/marshal/v5/PartialCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::PartialCommandMarshaller**

*Marshaling code for Open Wire Format for **PartialCommandMarshaller** (p. 2493).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.399

src/main/activemq/wireformat/openwire/marshal/v1/ProducerAckMarshaller.h

File Reference

7.399 src/main/activemq/wireformat/openwire/marshal/v1/ProducerA<sup>3845</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ProducerAckMarshaller**  
*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2599).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.400 src/main/activemq/wireformat/openwire/marshal/v2/ProducerAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ProducerAckMarshaller**  
*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2583).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.401

src/main/activemq/wireformat/openwire/marshal/v3/ProducerAckMarshaller.h

File Reference

7.401 <sup>3847</sup>src/main/activemq/wireformat/openwire/marshal/v3/ProducerA

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ProducerAckMarshaller**  
*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2587).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.402 src/main/activemq/wireformat/openwire/marshal/v4/ProducerAckMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ProducerAckMarshaller**  
*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2591).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.403

src/main/activemq/wireformat/openwire/marshal/v5/ProducerAckMarshaller.h

File Reference

7.403 src/main/activemq/wireformat/openwire/marshal/v5/ProducerA<sup>3849</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ProducerAckMarshaller**  
*Marshaling code for Open Wire Format for **ProducerAckMarshaller** (p. 2595).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.404 src/main/activemq/wireformat/openwire/marshal/v1/ProducerId File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ProducerIdMarshaller**  
*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2623).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.405

src/main/activemq/wireformat/openwire/marshal/v2/ProducerIdMarshaller.h File

Reference

7.405 <sup>3851</sup>src/main/activemq/wireformat/openwire/marshal/v2/ProducerId

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ProducerIdMarshaller**  
*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2611).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.406 src/main/activemq/wireformat/openwire/marshal/v3/ProducerId File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ProducerIdMarshaller**  
*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2615).*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.407

src/main/activemq/wireformat/openwire/marshal/v4/ProducerIdMarshaller.h File

Reference

7.407 src/main/activemq/wireformat/openwire/marshal/v4/ProducerId<sup>3853</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ProducerIdMarshaller**  
*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2627).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.408 src/main/activemq/wireformat/openwire/marshal/v5/ProducerId File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ProducerIdMarshaller**  
*Marshaling code for Open Wire Format for **ProducerIdMarshaller** (p. 2619).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.409

src/main/activemq/wireformat/openwire/marshal/v1/ProducerInfoMarshaller.h

File Reference

7.409 <sup>3855</sup> src/main/activemq/wireformat/openwire/marshal/v1/ProducerInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ProducerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2652).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.410 src/main/activemq/wireformat/openwire/marshal/v2/ProducerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ProducerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2636).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.411

src/main/activemq/wireformat/openwire/marshal/v3/ProducerInfoMarshaller.h

File Reference

7.411 <sup>3857</sup>src/main/activemq/wireformat/openwire/marshal/v3/ProducerInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ProducerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2640).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.412 src/main/activemq/wireformat/openwire/marshal/v4/ProducerInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ProducerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2648).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.413

src/main/activemq/wireformat/openwire/marshal/v5/ProducerInfoMarshaller.h

File Reference

7.413 <sup>3859</sup> src/main/activemq/wireformat/openwire/marshal/v5/ProducerInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ProducerInfoMarshaller**  
*Marshaling code for Open Wire Format for **ProducerInfoMarshaller** (p. 2644).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.414 src/main/activemq/wireformat/openwire/marshal/v1/RemoveInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::RemoveInfoMarshaller**  
*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2707).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.415

src/main/activemq/wireformat/openwire/marshal/v2/RemoveInfoMarshaller.h File  
Reference

## 7.415 src/main/activemq/wireformat/openwire/marshal/v2/RemoveInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::RemoveInfoMarshaller**  
*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2715).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.416 src/main/activemq/wireformat/openwire/marshal/v3/RemoveInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::RemoveInfoMarshaller**  
*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2719).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.417

src/main/activemq/wireformat/openwire/marshal/v4/RemoveInfoMarshaller.h File  
Reference

7.417 <sup>3863</sup>src/main/activemq/wireformat/openwire/marshal/v4/RemoveInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::RemoveInfoMarshaller**  
*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2723).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.418 src/main/activemq/wireformat/openwire/marshal/v5/RemoveInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::RemoveInfoMarshaller**  
*Marshaling code for Open Wire Format for **RemoveInfoMarshaller** (p. 2711).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.419 src/main/activemq/wireformat/openwire/marsh  
shal/v1/RemoveSubscriptionInfoMarshaller.h File

Reference

7.419 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3865</sup>~~al/v1/RemoveSu~~

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2740).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.420 src/main/activemq/wireformat/openwire/marshal/v2/RemoveSubscriptionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2736).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.421 src/main/activemq/wireformat/openwire/marsh  
shal/v3/RemoveSubscriptionInfoMarshaller.h File

Reference

7.421 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3867</sup>/v3/RemoveSubscriptionInfoMarshaller.h File

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2744).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.422 src/main/activemq/wireformat/openwire/marshal/v4/RemoveSubscriptionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2748).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.423 src/main/activemq/wireformat/openwire/marsh  
shal/v5/RemoveSubscriptionInfoMarshaller.h File

Reference

7.423 <sup>3869</sup>src/main/activemq/wireformat/openwire/marsh/v5/RemoveSu

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::RemoveSubscriptionInfoMarshaller**

*Marshaling code for Open Wire Format for **RemoveSubscriptionInfoMarshaller** (p. 2732).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.424 src/main/activemq/wireformat/openwire/marshal/v1/ReplayCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2772).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.425 src/main/activemq/wireformat/openwire/mar-  
shal/v2/ReplayCommandMarshaller.h File

Reference

7.425 <sup>3871</sup>src/main/activemq/wireformat/openwire/marsh/v2/ReplayCon

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2756).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.426 src/main/activemq/wireformat/openwire/marshal/v3/ReplayCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2760).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.427 src/main/activemq/wireformat/openwire/marsh  
shal/v4/ReplayCommandMarshaller.h File

Reference

7.427 <sup>3873</sup>src/main/activemq/wireformat/openwire/marsh/v4/ReplayCon

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2768).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.428 src/main/activemq/wireformat/openwire/marshal/v5/ReplayCommandMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ReplayCommandMarshaller**

*Marshaling code for Open Wire Format for **ReplayCommandMarshaller** (p. 2764).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.429 src/main/activemq/wireformat/openwire/marshal/v1/ResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ResponseMarshaller**  
*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2806).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.430 src/main/activemq/wireformat/openwire/marshal/v2/ResponseM File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ResponseMarshaller**  
*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2791).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.431 src/main/activemq/wireformat/openwire/marshal/v3/ResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ResponseMarshaller**  
*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2796).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.432 src/main/activemq/wireformat/openwire/marshal/v4/ResponseM File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ResponseMarshaller**  
*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2811).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.433 src/main/activemq/wireformat/openwire/marshal/v5/ResponseMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ResponseMarshaller**  
*Marshaling code for Open Wire Format for **ResponseMarshaller** (p. 2801).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.434 src/main/activemq/wireformat/openwire/marshal/v1/SessionIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::SessionIdMarshaller**  
*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2861).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**



## 7.435 src/main/activemq/wireformat/openwire/marshal/v2/SessionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::SessionIdMarshaller**  
*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2865).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.436 src/main/activemq/wireformat/openwire/marshal/v3/SessionIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::SessionIdMarshaller**  
*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2873).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.437 src/main/activemq/wireformat/openwire/marshal/v4/SessionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::SessionIdMarshaller**  
*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2869).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.438 src/main/activemq/wireformat/openwire/marshal/v5/SessionIdM File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::SessionIdMarshaller**  
*Marshaling code for Open Wire Format for **SessionIdMarshaller** (p. 2857).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.439

src/main/activemq/wireformat/openwire/marshal/v1/SessionInfoMarshaller.h File

Reference

7.439<sup>3885</sup> src/main/activemq/wireformat/openwire/marshal/v1/SessionInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::SessionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2885).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.440 src/main/activemq/wireformat/openwire/marshal/v2/SessionInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::SessionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2881).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.441

src/main/activemq/wireformat/openwire/marshal/v3/SessionInfoMarshaller.h File

Reference

7.441<sup>3887</sup> src/main/activemq/wireformat/openwire/marshal/v3/SessionInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::SessionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2897).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.442 src/main/activemq/wireformat/openwire/marshal/v4/SessionInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::SessionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2889).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**



7.443

src/main/activemq/wireformat/openwire/marshal/v5/SessionInfoMarshaller.h File

Reference

7.443<sup>3889</sup> src/main/activemq/wireformat/openwire/marshal/v5/SessionInfo

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::SessionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SessionInfoMarshaller** (p. 2893).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.444 src/main/activemq/wireformat/openwire/marshal/v1/ShutdownInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::ShutdownInfoMarshaller**  
*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2937).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.445

src/main/activemq/wireformat/openwire/marshal/v2/ShutdownInfoMarshaller.h

File Reference

7.445<sup>3891</sup> src/main/activemq/wireformat/openwire/marshal/v2/ShutdownI

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::ShutdownInfoMarshaller**  
*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2949).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.446 src/main/activemq/wireformat/openwire/marshal/v3/ShutdownInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::ShutdownInfoMarshaller**  
*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2945).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.447

src/main/activemq/wireformat/openwire/marshal/v4/ShutdownInfoMarshaller.h

File Reference

7.447 src/main/activemq/wireformat/openwire/marshal/v4/ShutdownI<sup>3893</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::ShutdownInfoMarshaller**  
*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2941).*

## Namespaces

- namespace **activemq**  
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ments.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.448 src/main/activemq/wireformat/openwire/marshal/v5/ShutdownInfo File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::ShutdownInfoMarshaller**  
*Marshaling code for Open Wire Format for **ShutdownInfoMarshaller** (p. 2953).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.449

src/main/activemq/wireformat/openwire/marshal/v1/SubscriptionInfoMarshaller.h

File Reference

7.449 <sup>3895</sup> src/main/activemq/wireformat/openwire/marshal/v1/SubscriptionInfoMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::SubscriptionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3102).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.450 src/main/activemq/wireformat/openwire/marshal/v2/SubscriptionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::SubscriptionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3118).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**



7.451

src/main/activemq/wireformat/openwire/marshal/v3/SubscriptionInfoMarshaller.h

File Reference

7.451 <sup>3897</sup>src/main/activemq/wireformat/openwire/marshal/v3/SubscriptionInfoMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::SubscriptionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3106).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.452 src/main/activemq/wireformat/openwire/marshal/v4/SubscriptionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::SubscriptionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3114).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.453

src/main/activemq/wireformat/openwire/marshal/v5/SubscriptionInfoMarshaller.h

File Reference

7.453 src/main/activemq/wireformat/openwire/marshal/v5/SubscriptionInfoMarshaller.h 3899

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::SubscriptionInfoMarshaller**  
*Marshaling code for Open Wire Format for **SubscriptionInfoMarshaller** (p. 3110).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.454 src/main/activemq/wireformat/openwire/marshal/v1/TransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::TransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3224).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.455

src/main/activemq/wireformat/openwire/marshal/v2/TransactionIdMarshaller.h

File Reference

7.455 src/main/activemq/wireformat/openwire/marshal/v2/Transaction<sup>3901</sup>

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::TransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3220).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.456 src/main/activemq/wireformat/openwire/marshal/v3/TransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::TransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3236).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

7.457

src/main/activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h

File Reference

7.457 src/main/activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h 3903

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::TransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3228).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.458 src/main/activemq/wireformat/openwire/marshal/v5/TransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::TransactionIdMarshaller**  
*Marshaling code for Open Wire Format for **TransactionIdMarshaller** (p. 3232).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**



7.459

src/main/activemq/wireformat/openwire/marshal/v1/TransactionInfoMarshaller.h

File Reference

7.459 src/main/activemq/wireformat/openwire/marshal/v1/TransactionInfoMarshaller.h 3905

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::TransactionInfoMarshaller**  
*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3253).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.460 src/main/activemq/wireformat/openwire/marshal/v2/TransactionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::TransactionInfoMarshaller**  
*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3261).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.461

src/main/activemq/wireformat/openwire/marshal/v3/TransactionInfoMarshaller.h

File Reference

7.461 <sup>3907</sup>src/main/activemq/wireformat/openwire/marshal/v3/Transaction

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::TransactionInfoMarshaller**  
*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3249).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.462 src/main/activemq/wireformat/openwire/marshal/v4/TransactionInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::TransactionInfoMarshaller**  
*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3257).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.463

src/main/activemq/wireformat/openwire/marshal/v5/TransactionInfoMarshaller.h

File Reference

7.463 src/main/activemq/wireformat/openwire/marshal/v5/TransactionInfoMarshaller.h 3909

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/BaseCommandMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::TransactionInfoMarshaller**  
*Marshaling code for Open Wire Format for **TransactionInfoMarshaller** (p. 3245).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.464 src/main/activemq/wireformat/openwire/marshal/v1/WireFormatInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v1::WireFormatInfoMarshaller**  
*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3387).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

7.465

src/main/activemq/wireformat/openwire/marshal/v2/WireFormatInfoMarshaller.h

File Reference

7.465 src/main/activemq/wireformat/openwire/marshal/v2/WireFormatInfoMarshaller.h 3911

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v2::WireFormatInfoMarshaller**  
*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3379).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

## 7.466 src/main/activemq/wireformat/openwire/marshal/v3/WireFormatInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v3::WireFormatInfoMarshaller**  
*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3395).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**



7.467

src/main/activemq/wireformat/openwire/marshal/v4/WireFormatInfoMarshaller.h

File Reference

7.467 <sup>3913</sup> src/main/activemq/wireformat/openwire/marshal/v4/WireFormatInfoMarshaller.h

## File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v4::WireFormatInfoMarshaller**  
*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3391).*

## Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

## 7.468 src/main/activemq/wireformat/openwire/marshal/v5/WireFormatInfoMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/BaseDataStreamMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v5::WireFormatInfoMarshaller**  
*Marshaling code for Open Wire Format for **WireFormatInfoMarshaller** (p. 3383).*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

7.469 src/main/activemq/wireformat/openwire/marsh-  
shal/v1/XATransactionIdMarshaller.h File

Reference

7.469 <sup>3915</sup>src/main/activemq/wireformat/openwire/marshal/v1/XATransac

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v1/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v1::XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3427).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v1**

## 7.470 src/main/activemq/wireformat/openwire/marshal/v2/XATransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v2/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v2::XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3415).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v2**

7.471 src/main/activemq/wireformat/openwire/marsh  
shal/v3/XATransactionIdMarshaller.h File

Reference

7.471 ~~src/main/activemq/wireformat/openwire/marsh~~<sup>3917</sup>~~shal/v3/XATransac~~  
File Reference

```
#include <activemq/wireformat/openwire/marshal/v3/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v3::XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3419).*

## Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v3**

## 7.472 src/main/activemq/wireformat/openwire/marshal/v4/XATransactionIdMarshaller.h File Reference

```
#include <activemq/wireformat/openwire/marshal/v4/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/Utils/BooleanStream.h>
```

### Data Structures

- class **activemq::wireformat::openwire::marshal::v4::XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3423).*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v4**

7.473 src/main/activemq/wireformat/openwire/marsh-  
shal/v5/XATransactionIdMarshaller.h File

Reference

7.473 <sup>3919</sup>src/main/activemq/wireformat/openwire/marsh/v5/XATransac

## File Reference

```
#include <activemq/wireformat/openwire/marshal/v5/TransactionIdMarshaller.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <activemq/util/Config.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
```

## Data Structures

- class **activemq::wireformat::openwire::marshal::v5::XATransactionIdMarshaller**

*Marshaling code for Open Wire Format for **XATransactionIdMarshaller** (p. 3431).*

## Namespaces

- namespace **activemq**

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ments.*

- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**
- namespace **activemq::wireformat::openwire::marshal::v5**

## 7.474 src/main/activemq/wireformat/openwire/OpenWireFormat.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/WireFormatInfo.h>
#include <activemq/commands/DataStructure.h>
#include <activemq/wireformat/WireFormat.h>
#include <activemq/wireformat/openwire/utils/BooleanStream.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/Properties.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <memory>
```

### Data Structures

- class **activemq::wireformat::openwire::OpenWireFormat**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::marshal**



## 7.475 src/main/activemq/wireformat/openwire/OpenWireFormatFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/wireformat/WireFormatFactory.h>
#include <activemq/commands/WireFormatInfo.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/Properties.h>
```

### Data Structures

- class **activemq::wireformat::openwire::OpenWireFormatFactory**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**

## 7.476 src/main/activemq/wireformat/openwire/OpenWireFormatNegotiator.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <activemq/wireformat/openwire/OpenWireFormat.h>
#include <activemq/wireformat/WireFormatNegotiator.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/concurrent/CountDownLatch.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::openwire::OpenWireFormatNegotiator**

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**

## 7.477 src/main/activemq/wireformat/openwire/OpenWireResponseBuilder.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/mock/ResponseBuilder.h>
#include <decaf/util/StlQueue.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::openwire::OpenWireResponseBuilder**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**

## 7.478 src/main/activemq/wireformat/openwire/utils/BooleanStream.h File Reference

```
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::wireformat::openwire::utils::BooleanStream**  
*Manages the writing and reading of boolean data streams to and from a data source such as a `DataInputStream` or `DataOutputStream`.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::utils**

## 7.479 src/main/activemq/wireformat/openwire/Utils/HexTable.h File Reference

```
#include <vector>
#include <string>
#include <activemq/Util/Config.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
```

### Data Structures

- class **activemq::wireformat::openwire::Utils::HexTable**

*The **HexTable** (p. 1715) class maps hexadecimal strings to the value of an index into the table, i.e.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::Utils**

## 7.480 src/main/activemq/wireformat/openwire/utils/MessagePropertyL File Reference

```
#include <activemq/util/Config.h>
#include <activemq/commands/Message.h>
#include <activemq/util/PrimitiveMap.h>
#include <activemq/exceptions/ActiveMQException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **activemq::wireformat::openwire::utils::MessagePropertyInterceptor**  
*Used the base ActiveMQMessage class to intercept calls to get and set properties in order to capture the calls that use the reserved JMS properties and get and set them in the OpenWire Message properties.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::utils**

## 7.481 src/main/activemq/wireformat/openwire/Utils/OpenwireStringSupport.h File Reference

```
#include <string>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <activemq/Util/Config.h>
```

### Data Structures

- class **activemq::wireformat::openwire::Utils::OpenwireStringSupport**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::openwire**
- namespace **activemq::wireformat::openwire::Utils**

## 7.482 src/main/activemq/wireformat/stomp/StompCommandConstants File Reference

```
#include <cms/Destination.h>
#include <activemq/util/Config.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <string>
#include <map>
```

### Data Structures

- class **activemq::wireformat::stomp::StompCommandConstants**

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::stomp**



## 7.483 src/main/activemq/wireformat/stomp/StompFrame.h File Reference

```
#include <string>
#include <string.h>
#include <map>
#include <decaf/util/Properties.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/DataInputStream.h>
#include <activemq/util/Config.h>
```

### Data Structures

- class **activemq::wireformat::stomp::StompFrame**  
*A Stomp-level message frame that encloses all messages to and from the broker.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::stomp**

## 7.484 src/main/activemq/wireformat/stomp/StompHelper.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/util/LongSequenceGenerator.h>
#include <activemq/wireformat/stomp/StompFrame.h>
#include <activemq/commands/Message.h>
#include <activemq/commands/MessageId.h>
#include <activemq/commands/ProducerId.h>
#include <activemq/commands/ConsumerId.h>
#include <activemq/commands/TransactionId.h>
#include <activemq/commands/ActiveMQDestination.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::stomp::StompHelper**  
*Utility Methods used when marshaling to and from StompFrame's.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**
- namespace **activemq::wireformat::stomp**

## 7.485 src/main/activemq/wireformat/stomp/StompWireFormat.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/wireformat/WireFormat.h>
#include <activemq/wireformat/stomp/StompFrame.h>
#include <activemq/wireformat/stomp/StompHelper.h>
#include <decaf/util/concurrent/atomic/AtomicBoolean.h>
#include <decaf/io/IOException.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::stomp::StompWireFormat**

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::stomp**

## 7.486 src/main/activemq/wireformat/stomp/StompWireFormatFactory File Reference

```
#include <activemq/util/Config.h>
#include <activemq/wireformat/WireFormatFactory.h>
#include <activemq/wireformat/stomp/StompWireFormat.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::stomp::StompWireFormatFactory**  
*Factory used to create the Stomp Wire Format instance.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**
- namespace **activemq::wireformat::stomp**

## 7.487 src/main/activemq/wireformat/WireFormat.h File Reference

```
#include <activemq/wireformat/WireFormatNegotiator.h>
#include <decaf/io/DataInputStream.h>
#include <decaf/io/DataOutputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/lang/Pointer.h>
#include <activemq/util/Config.h>
#include <activemq/commands/Command.h>
#include <activemq/transport/Transport.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
```

### Data Structures

- class **activemq::wireformat::WireFormat**  
*Provides a mechanism to marshal commands into and out of packets or into and out of streams, Channels and Datagrams.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**

## 7.488 src/main/activemq/wireformat/WireFormatFactory.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/wireformat/WireFormat.h>
#include <decaf/util/Properties.h>
#include <decaf/lang/Pointer.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
```

### Data Structures

- class **activemq::wireformat::WireFormatFactory**

*The **WireFormatFactory** (p. 3367) is the interface that all **WireFormatFactory** (p. 3367) classes must extend.*

### Namespaces

- namespace **activemq**

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- namespace **activemq::wireformat**

## 7.489 src/main/activemq/wireformat/WireFormatNegotiator.h File Reference

```
#include <activemq/util/Config.h>
#include <activemq/transport/TransportFilter.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **activemq::wireformat::WireFormatNegotiator**  
*Defines a **WireFormatNegotiator** (p. 3399) which allows a **WireFormat** (p. 3363) to.*

### Namespaces

- namespace **activemq**  
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- namespace **activemq::wireformat**

## 7.490 src/main/activemq/wireformat/WireFormatRegistry.h File Reference

```
#include <activemq/util/Config.h>
#include <string>
#include <vector>
#include <activemq/wireformat/WireFormatFactory.h>
#include <decaf/util/StlMap.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **activemq::wireformat::WireFormatRegistry**  
*Registry of all **WireFormat** (p. 3363) Factories that are available to the client at runtime.*

### Namespaces

- namespace **activemq**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **activemq::wireformat**



## 7.491 src/main/cms/BytesMessage.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
#include <cms/MessageNotReadableException.h>
#include <cms/MessageNotWriteableException.h>
#include <cms/MessageEOFException.h>
#include <cms/MessageFormatException.h>
```

### Data Structures

- class **cms::BytesMessage**

*A **BytesMessage** (p. 938) object is used to send a message containing a stream of unsigned bytes.*

### Namespaces

- namespace **cms**

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## 7.492 src/main/cms/Closeable.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Closeable**  
*Interface for a class that implements the close method.*

### Namespaces

- namespace **cms**  
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## 7.493 src/main/decaf/io/Closeable.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::io::Closeable**  
*Interface for a class that implements the close method.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::io**

## 7.494 src/main/cms/CMSException.h File Reference

```
#include <string>
#include <vector>
#include <iostream>
#include <exception>
#include <cms/Config.h>
```

### Data Structures

- class **cms::CMSException**

*CMS API Exception that is the base for all exceptions thrown from CMS classes.*

### Namespaces

- namespace **cms**

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## 7.495 src/main/cms/CMSProperties.h File Reference

```
#include <cms/Config.h>
#include <map>
#include <string>
#include <vector>
```

### Data Structures

- class **cms::CMSProperties**  
*Interface for a Java-like properties object.*

### Namespaces

- namespace **cms**  
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## 7.496 src/main/cms/CMSSecurityException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::CMSSecurityException**

*This exception must be thrown when a provider rejects a user name/password submitted by a client.*

### Namespaces

- namespace **cms**

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## 7.497 src/main/cms/Connection.h File Reference

```
#include <cms/Config.h>
#include <cms/Startable.h>
#include <cms/Stopable.h>
#include <cms/Closeable.h>
#include <cms/Session.h>
#include <cms/ConnectionMetaData.h>
```

### Data Structures

- class **cms::Connection**  
*The client's connection to its provider.*

### Namespaces

- namespace **cms**  
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## 7.498 src/main/cms/ConnectionFactory.h File Reference

```
#include <cms/Config.h>
#include <cms/Connection.h>
#include <cms/CMSException.h>
#include <string>
```

### Data Structures

- class **cms::ConnectionFactory**

*Defines the interface for a factory that creates connection objects, the **Connection** (p. 1131) objects returned implement the CMS **Connection** (p. 1131) interface and hide the CMS Provider specific implementation details behind that interface.*

### Namespaces

- namespace **cms**

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## 7.499 src/main/cms/ConnectionMetaData.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::ConnectionMetaData**

*A **ConnectionMetaData** (p. 1237) object provides information describing the **Connection** (p. 1131) object.*

### Namespaces

- namespace **cms**

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## 7.500 src/main/cms/DeliveryMode.h File Reference

```
#include <cms/Config.h>
```

### Data Structures

- class **cms::DeliveryMode**

*This is an Abstract class whose purpose is to provide a container for the delivery mode enumeration for CMS messages.*

### Namespaces

- namespace **cms**

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## 7.501 src/main/cms/Destination.h File Reference

```
#include <cms/CMSProperties.h>
#include <cms/Config.h>
#include <string>
```

### Data Structures

- class **cms::Destination**

*A **Destination** (p. 1480) object encapsulates a provider-specific address.*

### Namespaces

- namespace **cms**

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## 7.502 src/main/cms/ExceptionListener.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::ExceptionListener**

*If a CMS provider detects a serious problem, it notifies the client application through an **ExceptionListener** (p. 1581) that is registered with the **Connection** (p. 1131).*

### Namespaces

- namespace **cms**

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## 7.503 src/main/cms/IllegalStateException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::IllegalStateException**

*This exception is thrown when a method is invoked at an illegal or inappropriate time or if the provider is not in an appropriate state for the requested operation.*

### Namespaces

- namespace **cms**

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## 7.504 src/main/decaf/lang/exceptions/IllegalStateException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::IllegalStateException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.505 src/main/cms/InvalidClientIdException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::InvalidClientIdException**

*This exception must be thrown when a client attempts to set a connection's client ID to a value that is rejected by a provider.*

### Namespaces

- namespace **cms**

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## 7.506 src/main/cms/InvalidDestinationException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::InvalidDestinationException**

*This exception must be thrown when a destination either is not understood by a provider or is no longer valid.*

### Namespaces

- namespace **cms**

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## 7.507 src/main/cms/InvalidSelectorException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::InvalidSelectorException**

*This exception must be thrown when a CMS client attempts to give a provider a message selector with invalid syntax.*

### Namespaces

- namespace **cms**

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## 7.508 src/main/cms/MapMessage.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageNotWriteableException.h>
```

### Data Structures

- class **cms::MapMessage**

*A **MapMessage** (p. 2106) object is used to send a set of name-value pairs.*

### Namespaces

- namespace **cms**

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## 7.509 src/main/cms/MessageConsumer.h File Reference

```
#include <cms/Config.h>
#include <cms/MessageListener.h>
#include <cms/Message.h>
#include <cms/Closeable.h>
```

### Data Structures

- class **cms::MessageConsumer**

*A client uses a `MessageConsumer` (p. 2214) to received messages from a destination.*

### Namespaces

- namespace **cms**

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## 7.510 src/main/cms/MessageEOFException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::MessageEOFException**

*This exception must be thrown when an unexpected end of stream has been reached when a **StreamMessage** (p. 3081) or **BytesMessage** (p. 938) is being read.*

### Namespaces

- namespace **cms**

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## 7.511 src/main/cms/MessageFormatException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::MessageFormatException**

*This exception must be thrown when a CMS client attempts to use a data type not supported by a message or attempts to read data in a message as the wrong type.*

### Namespaces

- namespace **cms**

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## 7.512 src/main/cms/MessageListener.h File Reference

```
#include <cms/Config.h>
```

### Data Structures

- class **cms::MessageListener**

*A `MessageListener` (p. 2304) object is used to receive asynchronously delivered messages.*

### Namespaces

- namespace **cms**

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## 7.513 src/main/cms/MessageNotReadableException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::MessageNotReadableException**

*This exception must be thrown when a CMS client attempts to read a write-only message.*

### Namespaces

- namespace **cms**

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## 7.514 src/main/cms/MessageNotWriteableException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::MessageNotWriteableException**

*This exception must be thrown when a CMS client attempts to write to a read-only message.*

### Namespaces

- namespace **cms**

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## 7.515 src/main/cms/MessageProducer.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
#include <cms/Destination.h>
#include <cms/Closeable.h>
#include <cms/CMSException.h>
#include <cms/InvalidDestinationException.h>
#include <cms/MessageFormatException.h>
#include <cms/UnsupportedOperationException.h>
#include <cms/DeliveryMode.h>
```

### Data Structures

- class **cms::MessageProducer**

*A client uses a **MessageProducer** ( p. 2332) object to send messages to a **Destination** (p. 1480).*

### Namespaces

- namespace **cms**

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## 7.516 src/main/cms/ObjectMessage.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
```

### Data Structures

- class **cms::ObjectMessage**

*Place holder for interaction with JMS systems that support Java, the C++ client is not responsible for deserializing the contained Object.*

### Namespaces

- namespace **cms**

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## 7.517 src/main/cms/Queue.h File Reference

```
#include <cms/Config.h>
#include <cms/Destination.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Queue**

*An interface encapsulating a provider-specific queue name.*

### Namespaces

- namespace **cms**

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## 7.518 src/main/decaf/util/Queue.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/AbstractCollection.h>
#include <decaf/lang/Exception.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
```

### Data Structures

- class **decaf::util::Queue< E >**

*A kind of collection provides advanced operations than other basic collections, such as insertion, extraction, and inspection.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.519 src/main/cms/QueueBrowser.h File Reference

```
#include <vector>
#include <string>
#include <cms/Config.h>
#include <cms/Closeable.h>
#include <cms/Queue.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::QueueBrowser**

*This class implements in interface for browsing the messages in a **Queue** (p. 2674) without removing them.*

### Namespaces

- namespace **cms**

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## 7.520 src/main/cms/Session.h File Reference

```
#include <cms/Config.h>
#include <cms/Closeable.h>
#include <cms/Message.h>
#include <cms/TextMessage.h>
#include <cms/BytesMessage.h>
#include <cms/MapMessage.h>
#include <cms/StreamMessage.h>
#include <cms/MessageProducer.h>
#include <cms/MessageConsumer.h>
#include <cms/Topic.h>
#include <cms/Queue.h>
#include <cms/QueueBrowser.h>
#include <cms/TemporaryTopic.h>
#include <cms/TemporaryQueue.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Session**

*A **Session** (p. 2839) object is a single-threaded context for producing and consuming messages.*

### Namespaces

- namespace **cms**

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## 7.521 src/main/cms/Startable.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Startable**  
*Interface for a class that implements the start method.*

### Namespaces

- namespace **cms**  
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## 7.522 src/main/cms/Stoppable.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Stoppable**  
*Interface for a class that implements the stop method.*

### Namespaces

- namespace **cms**  
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## 7.523 src/main/cms/StreamMessage.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
#include <cms/MessageNotReadableException.h>
#include <cms/MessageNotWriteableException.h>
#include <cms/MessageFormatException.h>
#include <cms/MessageEOFException.h>
```

### Data Structures

- class **cms::StreamMessage**  
*Interface for a **StreamMessage** (p. 3081).*

### Namespaces

- namespace **cms**  
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## 7.524 src/main/cms/TemporaryQueue.h File Reference

```
#include <cms/Config.h>
#include <cms/Destination.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::TemporaryQueue**  
*Defines a Temporary **Queue** (p. 2674) based **Destination** (p. 1480).*

### Namespaces

- namespace **cms**  
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## 7.525 src/main/cms/TemporaryTopic.h File Reference

```
#include <cms/Config.h>
#include <cms/Destination.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::TemporaryTopic**  
*Defines a Temporary **Topic** (p. 3215) based **Destination** (p. 1480).*

### Namespaces

- namespace **cms**  
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## 7.526 src/main/cms/TextMessage.h File Reference

```
#include <cms/Config.h>
#include <cms/Message.h>
#include <cms/CMSException.h>
#include <cms/MessageNotWriteableException.h>
```

### Data Structures

- class **cms::TextMessage**  
*Interface for a text message.*

### Namespaces

- namespace **cms**  
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## 7.527 src/main/cms/Topic.h File Reference

```
#include <cms/Config.h>
#include <cms/Destination.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::Topic**

*An interface encapsulating a provider-specific topic name.*

### Namespaces

- namespace **cms**

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## 7.528 src/main/cms/UnsupportedOperationException.h File Reference

```
#include <cms/Config.h>
#include <cms/CMSException.h>
```

### Data Structures

- class **cms::UnsupportedOperationException**

*This exception must be thrown when a CMS client attempts use a CMS method that is not implemented or not supported by the CMS Provider in use.*

### Namespaces

- namespace **cms**

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## 7.529 src/main/decaf/lang/exceptions/UnsupportedOperationException File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::UnsupportedOperationException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.530 src/main/decaf/internal/AprPool.h File Reference

```
#include <decaf/util/Config.h>
```

```
#include <apr_pools.h>
```

### Data Structures

- class **decaf::internal::AprPool**

*Wraps an APR pool object so that classes in decaf can create a static member for use in static methods where apr function calls that need a pool are made.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**



## 7.531 src/main/decaf/internal/DecafRuntime.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Runtime.h>
#include <memory>
#include <apr_pools.h>
```

### Data Structures

- class **decaf::internal::DecafRuntime**  
*Handles APR initialization and termination.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**

## 7.532 src/main/decaf/internal/io/StandardErrorOutputStream.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/OutputStream.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::internal::io::StandardErrorOutputStream**  
*Wrapper Around the Standard error Output facility on the current platform.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::io**

## 7.533 src/main/decaf/internal/io/StandardInputStream.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/InputStream.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::internal::io::StandardInputStream**

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::internal**
- namespace **decaf::internal::io**

## 7.534 src/main/decaf/internal/io/StandardOutputStream.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/OutputStream.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::internal::io::StandardOutputStream**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::io**

## 7.535 src/main/decaf/internal/net/URLEncoderDecoder.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/net/URISyntaxException.h>
#include <string>
```

### Data Structures

- class **decaf::internal::net::URLEncoderDecoder**

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::net**

## 7.536 src/main/decaf/internal/net/URIHelper.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
#include <decaf/net/URISyntaxException.h>
#include <decaf/internal/net/URIType.h>
```

### Data Structures

- class **decaf::internal::net::URIHelper**  
*Helper class used by the URI classes in encoding and decoding of URI's.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::net**

## 7.537 src/main/decaf/internal/net/URIType.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::internal::net::URIType**  
*Basic type object that holds data that composes a given URI.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::net**

## 7.538 src/main/decaf/internal/nio/BufferFactory.h File Reference

```
#include <decaf/nio/ByteBuffer.h>
#include <decaf/nio/CharBuffer.h>
#include <decaf/nio/DoubleBuffer.h>
#include <decaf/nio/FloatBuffer.h>
#include <decaf/nio/LongBuffer.h>
#include <decaf/nio/IntBuffer.h>
#include <decaf/nio/ShortBuffer.h>
```

### Data Structures

- class **decaf::internal::nio::BufferFactory**

*Factory class used by static methods in the **decaf::nio** (p. 128) package to create the various default version of the NIO interfaces.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::nio**



## 7.539 src/main/decaf/internal/nio/ByteBuffer.h File Reference

```
#include <decaf/nio/ByteBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
#include <decaf/nio/CharBuffer.h>
#include <decaf/nio/DoubleBuffer.h>
#include <decaf/nio/FloatBuffer.h>
#include <decaf/nio/ShortBuffer.h>
#include <decaf/nio/IntBuffer.h>
#include <decaf/nio/LongBuffer.h>
```

### Data Structures

- class **decaf::internal::nio::ByteBuffer**

*This class defines six categories of operations upon byte buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.540 src/main/decaf/internal/nio/ByteArrayPerspective.h File Reference

```
#include <decaf/internal/util/ByteArrayAdapter.h>
```

### Data Structures

- class **decaf::internal::nio::ByteArrayPerspective**

*This class extends `ByteArray` to create a reference counted byte array that can be held and used by several different `ByteBuffers` and allow them to know on destruction whose job it is to delete the perspective.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.541 src/main/decaf/internal/nio/CharArrayBuffer.h File Reference

```
#include <decaf/nio/CharBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::CharArrayBuffer**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.542 src/main/decaf/internal/nio/DoubleArrayBuffer.h File Reference

```
#include <decaf/nio/DoubleBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::DoubleArrayBuffer**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.543 src/main/decaf/internal/nio/FloatArrayBuffer.h File Reference

```
#include <decaf/nio/FloatBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::FloatArrayBuffer**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.544 src/main/decaf/internal/nio/IntArrayBuffer.h File Reference

```
#include <decaf/nio/IntBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::IntArrayBuffer**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.545 src/main/decaf/internal/nio/LongArrayBuffer.h File Reference

```
#include <decaf/nio/LongBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::LongArrayBuffer**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::nio**

## 7.546 src/main/decaf/internal/nio/ShortArrayBuffer.h File Reference

```
#include <decaf/nio/ShortBuffer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::internal::nio::ShortArrayBuffer**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::internal**
- namespace **decaf::internal::nio**



## 7.547 src/main/decaf/internal/util/ByteArrayAdapter.h File Reference

```
#include <decaf/lang/exceptions/InvalidStateException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
```

### Data Structures

- class **decaf::internal::util::ByteArrayAdapter**  
*This class adapts primitive type arrays to a base byte array so that the classes can inter-operate on the same base byte array without copying data.*
- union **decaf::internal::util::ByteArrayAdapter::Array**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::util**

## 7.548 src/main/decaf/internal/util/concurrent/ConditionImpl.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::ConditionImpl**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.549 src/main/decaf/internal/util/concurrent/MutexImpl.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::MutexImpl**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.550 src/main/decaf/internal/util/concurrent/SynchronizableImpl.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::SynchronizableImpl**

*A convenience class used by some Decaf classes to implement the Synchronizable interface when there is no issues related to multiple inheritance.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.551 src/main/decaf/internal/util/concurrent/Transferer.h File Reference

```
#include <decaf/lang/exceptions/InterruptedException.h>  
#include <decaf/util/concurrent/TimeoutException.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::Transferer< E >**  
*Shared internal API for dual stacks and queues.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.552 src/main/decaf/internal/util/concurrent/TransferQueue.h File Reference

```
#include <decaf/internal/util/concurrent/Transferer.h>
#include <decaf/util/concurrent/locks/LockSupport.h>
#include <decaf/util/concurrent/atomic/AtomicReference.h>
#include <decaf/util/concurrent/TimeoutException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/Thread.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::TransferQueue< E >**  
*This extends Scherer-Scott dual queue algorithm, differing, among other ways, by using modes within nodes rather than marked pointers.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.553 src/main/decaf/internal/util/concurrent/TransferStack.h File Reference

```
#include <decaf/internal/util/concurrent/Transferer.h>
#include <decaf/util/concurrent/TimeoutException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
```

### Data Structures

- class **decaf::internal::util::concurrent::TransferStack**< E >

### Namespaces

- namespace **decaf**  
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- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::internal::util::concurrent**

## 7.554 src/main/decaf/internal/util/concurrent/unix/ConditionHandle.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::ConditionHandle**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**



## 7.555 src/main/decaf/internal/util/concurrent/windows/ConditionHandle.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::ConditionHandle**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.556 src/main/decaf/internal/util/concurrent/unix/MutexHandle.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::MutexHandle**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.557 src/main/decaf/internal/util/concurrent/windows/MutexHandle. File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::MutexHandle**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.558 src/main/decaf/internal/util/HexStringParser.h File Reference

```
#include <decaf/util/Config.h>
#include <string>
```

### Data Structures

- class **decaf::internal::util::HexStringParser**

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::util**

## 7.559 src/main/decaf/internal/util/TimerTaskHeap.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/TimerTask.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **decaf::internal::util::TimerTaskHeap**

*A Binary Heap implemented specifically for the Timer class in Decaf Util.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::util**

## 7.560 src/main/decaf/io/BlockingByteArrayInputStream.h File Reference

```
#include <decaf/io/InputStream.h>
#include <decaf/util/concurrent/Mutex.h>
#include <vector>
```

### Data Structures

- class **decaf::io::BlockingByteArrayInputStream**  
*This is a blocking version of a byte buffer stream.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::io**

## 7.561 src/main/decaf/io/BufferedInputStream.h File Reference

```
#include <decaf/io/FilterInputStream.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **decaf::io::BufferedInputStream**

*A wrapper around another input stream that performs a buffered read, where it reads more data than it needs in order to reduce the number of io operations on the input stream.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.562 src/main/decaf/io/BufferedOutputStream.h File Reference

```
#include <decaf/io/FilterOutputStream.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **decaf::io::BufferedOutputStream**

*Wrapper around another output stream that buffers output before writing to the target output stream.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**



## 7.563 src/main/decaf/io/ByteArrayInputStream.h File Reference

```
#include <decaf/io/InputStream.h>
#include <decaf/util/concurrent/Mutex.h>
#include <vector>
#include <algorithm>
```

### Data Structures

- class **decaf::io::ByteArrayInputStream**

*Simple implementation of **InputStream** (p. 1740) that wraps around an STL Vector `std::vector<unsigned char>`.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.564 src/main/decaf/io/ByteArrayOutputStream.h File Reference

```
#include <decaf/io/OutputStream.h>
#include <decaf/util/concurrent/Mutex.h>
#include <vector>
```

### Data Structures

- class **decaf::io::ByteArrayOutputStream**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::io**

## 7.565 src/main/decaf/io/DataInputStream.h File Reference

```
#include <decaf/io/FilterInputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/io/EOFException.h>
#include <decaf/io/UTFDataFormatException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
```

### Data Structures

- class **decaf::io::DataInputStream**

*A data input stream lets an application read primitive Java data types from an underlying input stream in a machine-independent way.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.566 src/main/decaf/io/DataOutputStream.h File Reference

```
#include <decaf/io/FilterOutputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/io/UTFDataFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::io::DataOutputStream**

*A data output stream lets an application write primitive Java data types to an output stream in a portable way.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.567 src/main/decaf/io/EOFException.h File Reference

```
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::io::EOFException**

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.568 src/main/decaf/io/FilterInputStream.h File Reference

```
#include <decaf/io/InputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
```

### Data Structures

- class **decaf::io::FilterInputStream**

*A **FilterInputStream** (p. 1631) contains some other input stream, which it uses as its basic source of data, possibly transforming the data along the way or providing additional functionality.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.569 src/main/decaf/io/FilterOutputStream.h File Reference

```
#include <decaf/io/OutputStream.h>
#include <decaf/io/IOException.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::io::FilterOutputStream**

*This class is the superclass of all classes that filter output streams.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.570 src/main/decaf/io/InputStream.h File Reference

```
#include <decaf/io/IOException.h>
#include <decaf/io/Closeable.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::io::InputStream**  
*Base interface for an input stream.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::io**



## 7.571 src/main/decaf/io/InterruptedIOException.h File Reference

```
#include <decaf/lang/Exception.h>
```

```
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::io::InterruptedIOException**

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.572 src/main/decaf/io/IOException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::io::IOException**

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.573 src/main/decaf/io/OutputStream.h File Reference

```
#include <decaf/io/Closeable.h>
#include <decaf/io/IOException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::io::OutputStream**  
*Base interface for an output stream.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::io**

## 7.574 src/main/decaf/io/Reader.h File Reference

```
#include <string>
#include <decaf/io/IOException.h>
#include <decaf/io/InputStream.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::io::Reader**

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.575 src/main/decaf/io/UnsupportedEncodingException.h File Reference

```
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::io::UnsupportedEncodingException**  
*Thrown when the the Character Encoding is not supported.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::io**

## 7.576 src/main/decaf/io/UTFDataFormatException.h File Reference

```
#include <decaf/io/IIOException.h>
```

### Data Structures

- class **decaf::io::UTFDataFormatException**

*Thrown from classes that attempt to read or write a UTF-8 encoded string and an encoding error is encountered.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.577 src/main/decaf/io/Writer.h File Reference

```
#include <string>
#include <decaf/io/IOException.h>
#include <decaf/io/OutputStream.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::io::Writer**

### Namespaces

- namespace **decaf**

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- namespace **decaf::io**

## 7.578 src/main/decaf/lang/Appendable.h File Reference

```
#include <decaf/lang/Exception.h>
```

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Appendable**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**



## 7.579 src/main/decaf/lang/Boolean.h File Reference

```
#include <string>
#include <decaf/lang/Comparable.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Boolean**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.580 src/main/decaf/lang/Byte.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NumberFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Byte**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.581 src/main/decaf/lang/Character.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Character**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.582 src/main/decaf/lang/CharSequence.h File Reference

```
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::CharSequence**

*A **CharSequence** (p. 1014) is a readable sequence of char values.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.583 src/main/decaf/lang/Comparable.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Comparable**< T >

*This interface imposes a total ordering on the objects of each class that implements it.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.584 src/main/decaf/lang/Double.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/exceptions/NumberFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Double**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.585 src/main/decaf/lang/Exception.h File Reference

```
#include <decaf/lang/Throwable.h>
#include <decaf/lang/exceptions/ExceptionDefines.h>
#include <decaf/util/Config.h>
#include <stdarg.h>
#include <sstream>
```

### Data Structures

- class **decaf::lang::Exception**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.586 src/main/decaf/lang/exceptions/ClassCastException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::ClassCastException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**



## 7.587 src/main/decaf/lang/exceptions/IllegalArgumentException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::IllegalArgumentException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.588 src/main/decaf/lang/exceptions/IllegalMonitorStateException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::IllegalMonitorStateException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.589 src/main/decaf/lang/exceptions/IllegalThreadStateException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::IllegalThreadStateException**

### Namespaces

- namespace **decaf**  
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ments.*
- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.590 src/main/decaf/lang/exceptions/IndexOutOfBoundsException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::IndexOutOfBoundsException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.591 src/main/decaf/lang/exceptions/InterruptedException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::InterruptedException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.592 src/main/decaf/lang/exceptions/InvalidStateException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::InvalidStateException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.593 src/main/decaf/lang/exceptions/NoSuchElementException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::NoSuchElementException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.594 src/main/decaf/lang/exceptions/NullPointerException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::NullPointerException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**



## 7.595 src/main/decaf/lang/exceptions/NumberFormatException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::NumberFormatException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.596 src/main/decaf/lang/exceptions/RuntimeException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::lang::exceptions::RuntimeException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**
- namespace **decaf::lang::exceptions**

## 7.597 src/main/decaf/lang/Float.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NumberFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Float**

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.598 src/main/decaf/lang/Integer.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <string>
#include <decaf/lang/exceptions/NumberFormatException.h>
```

### Data Structures

- class **decaf::lang::Integer**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.599 src/main/decaf/lang/Iterable.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Iterator.h>
```

### Data Structures

- class **decaf::lang::Iterable**< **E** >

*Implementing this interface allows an object to be cast to an **Iterable** (p. 1830) type for generic collections API calls.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.600 src/main/decaf/lang/Long.h File Reference

```
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NumberFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Long**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.601 src/main/decaf/lang/Math.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Math**

*The class **Math** (p. 2126) contains methods for performing basic numeric operations such as the elementary exponential, logarithm, square root, and trigonometric functions.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.602 src/main/decaf/lang/Number.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Number**

*The abstract class **Number** (p. 2432) is the superclass of classes **Byte** (p. 840), **Double** (p. 1537), **Float** (p. 1647), **Integer** (p. 1762), **Long** (p. 2057), and **Short** (p. 2906).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**



## 7.603 src/main/decaf/lang/Pointer.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/ClassCastException.h>
#include <decaf/util/concurrent/atomic/AtomicInteger.h>
#include <decaf/util/Comparator.h>
#include <memory>
#include <typeinfo>
#include <algorithm>
```

### Data Structures

- class **decaf::lang::AtomicRefCounter**
- struct **decaf::lang::STATIC\_CAST\_TOKEN**
- struct **decaf::lang::DYNAMIC\_CAST\_TOKEN**
- class **decaf::lang::Pointer< T, REFCOUNTER >**

*Decaf's implementation of a Smart **Pointer** (p. 2497) that is a template on a Type and is Thread Safe if the default Reference Counter is used.*

- class **decaf::lang::PointerComparator< T, R >**

*This implementation of Comparator is designed to allows objects in a Collection to be sorted or tested for equality based on the value of the Object being Pointed to and not the value of the contained pointer in the **Pointer** (p. 2497) instance.*

- struct **std::less< decaf::lang::Pointer< T > >**

*An override of the less function object so that the Pointer objects can be stored in STL Maps, etc.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**
- namespace **std**

### Functions

- template<typename T , typename R , typename U >  
bool **decaf::lang::operator==** (const Pointer< T, R > &left, const U \*right)
- template<typename T , typename R , typename U >  
bool **decaf::lang::operator==** (const U \*left, const Pointer< T, R > &right)
- template<typename T , typename R , typename U >  
bool **decaf::lang::operator!=** (const Pointer< T, R > &left, const U \*right)

- `template<typename T , typename R , typename U >`  
  `bool decaf::lang::operator!= (const U *left, const Pointer< T, R > &right)`

## 7.604 src/main/decaf/lang/Runnable.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Runnable**

*Interface for a runnable object - defines a task that can be run by a thread.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.605 src/main/decaf/lang/Runtime.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Runtime**

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.606 src/main/decaf/lang/Short.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NumberFormatException.h>
#include <string>
```

### Data Structures

- class **decaf::lang::Short**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.607 src/main/decaf/lang/System.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Map.h>
#include <decaf/lang/Exception.h>
#include <decaf/internal/AprPool.h>
#include <string>
```

### Data Structures

- class **decaf::lang::System**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::lang**

## 7.608 src/main/decaf/lang/Thread.h File Reference

```
#include <decaf/lang/exceptions/IllegalThreadStateException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/RuntimeException.h>
#include <decaf/lang/Exception.h>
#include <decaf/lang/Runnable.h>
#include <decaf/lang/Pointer.h>
#include <decaf/util/Config.h>
```

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**
- namespace **decaf::lang**

## 7.609 src/main/decaf/lang/ThreadGroup.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::ThreadGroup**

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**



## 7.610 src/main/decaf/lang/Throwable.h File Reference

```
#include <string>
#include <vector>
#include <iostream>
#include <exception>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::lang::Throwable**

*This class represents an error that has occurred.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**

## 7.611 src/main/decaf/net/BindException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/net/SocketException.h>
```

### Data Structures

- class **decaf::net::BindException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.612 src/main/decaf/net/BufferedSocket.h File Reference

```
#include <decaf/net/Socket.h>
#include <decaf/net/SocketException.h>
#include <decaf/io/BufferedInputStream.h>
#include <decaf/io/BufferedOutputStream.h>
```

### Data Structures

- class **decaf::net::BufferedSocket**

*Buffered **Socket** (p. 2964) class that wraps a **Socket** (p. 2964) derived object and provides Buffered input and Output Streams to improve the efficiency of the reads and writes.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::net**

## 7.613 src/main/decaf/net/ConnectException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/net/SocketException.h>
```

### Data Structures

- class **decaf::net::ConnectException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.614 src/main/decaf/net/HttpRetryException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::HttpRetryException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.615 src/main/decaf/net/MalformedURLException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::MalformedURLException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.616 src/main/decaf/net/NoRouteToHostException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/net/SocketException.h>
```

### Data Structures

- class **decaf::net::NoRouteToHostException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.617 src/main/decaf/net/PortUnreachableException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/net/SocketException.h>
```

### Data Structures

- class **decaf::net::PortUnreachableException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**



## 7.618 src/main/decaf/net/ProtocolException.h File Reference

```
#include <decaf/util/Config.h>  
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::ProtocolException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.619 src/main/decaf/net/ServerSocket.h File Reference

```
#include <decaf/net/TcpSocket.h>
#include <decaf/net/SocketException.h>
#include <decaf/util/Config.h>
#include <decaf/internal/AprPool.h>
#include <apr_network_io.h>
```

### Data Structures

- class **decaf::net::ServerSocket**  
*A server socket class (for testing purposes).*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.620 src/main/decaf/net/Socket.h File Reference

```
#include <decaf/net/SocketException.h>
#include <decaf/io/InputStream.h>
#include <decaf/io/OutputStream.h>
#include <decaf/io/Closeable.h>
#include <decaf/util/Config.h>
#include <apr_network_io.h>
```

### Data Structures

- class **decaf::net::Socket**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.621 src/main/decaf/net/SocketError.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::net::SocketError**  
*Static utility class to simplify handling of error codes for socket operations.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.622 src/main/decaf/net/SocketException.h File Reference

```
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::SocketException**  
*Exception for errors when manipulating sockets.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.623 src/main/decaf/net/SocketFactory.h File Reference

```
#include <decaf/net/SocketException.h>
#include <decaf/util/Properties.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::net::SocketFactory**  
*Socket (p. 2964) Factory implementation for use in Creating Sockets.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.624 src/main/decaf/net/SocketInputStream.h File Reference

```
#include <decaf/io/InputStream.h>
#include <decaf/net/Socket.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/Exception.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::net::SocketInputStream**  
*Input stream for performing reads on a socket.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.625 src/main/decaf/net/SocketOutputStream.h File Reference

```
#include <decaf/io/OutputStream.h>
#include <decaf/net/Socket.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::net::SocketOutputStream**  
*Output stream for performing write operations on a socket.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**



## 7.626 src/main/decaf/net/SocketTimeoutException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/InterruptedIOException.h>
```

### Data Structures

- class **decaf::net::SocketTimeoutException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.627 src/main/decaf/net/TcpSocket.h File Reference

```
#include <decaf/net/SocketException.h>
#include <decaf/net/Socket.h>
#include <decaf/io/InputStream.h>
#include <decaf/io/OutputStream.h>
#include <decaf/util/Config.h>
#include <decaf/internal/AprPool.h>
```

### Data Structures

- class **decaf::net::TcpSocket**  
*Platform-independent implementation of the socket interface.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.628 src/main/decaf/net/UnknownHostException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::UnknownHostException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.629 src/main/decaf/net/UnknownServiceException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::net::UnknownServiceException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.630 src/main/decaf/net/URI.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/net/URISyntaxException.h>
#include <decaf/net/MalformedURLException.h>
#include <decaf/net/URL.h>
#include <decaf/internal/net/URIType.h>
#include <string>
```

### Data Structures

- class **decaf::net::URI**

*This class represents an instance of a **URI** (p. 3308) as defined by RFC 2396.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::net**

## 7.631 src/main/decaf/net/URISyntaxException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::net::URISyntaxException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::net**

## 7.632 src/main/decaf/net/URL.h File Reference

```
#include <decaf/util/Config.h>
```

```
#include <string>
```

### Data Structures

- class **decaf::net::URL**

*Class **URL** (p. 3347) represents a Uniform Resource Locator, a pointer to a "resource" on the World Wide Web.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::net**

## 7.633 src/main/decaf/net/URLDecoder.h File Reference

```
#include <decaf/util/Config.h>
```

```
#include <string>
```

### Data Structures

- class **decaf::net::URLDecoder**

### Namespaces

- namespace **decaf**

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- namespace **decaf::net**



## 7.634 src/main/decaf/net/URLEncoder.h File Reference

```
#include <decaf/util/Config.h>
```

```
#include <string>
```

### Data Structures

- class **decaf::net::URLEncoder**

### Namespaces

- namespace **decaf**

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- namespace **decaf::net**

## 7.635 src/main/decaf/nio/Buffer.h File Reference

```
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/nio/InvalidMarkException.h>
```

### Data Structures

- class **decaf::nio::Buffer**  
*A container for data of a specific primitive type.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::nio**

## 7.636 src/main/decaf/nio/BufferOverflowException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::nio::BufferOverflowException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::nio**

## 7.637 src/main/decaf/nio/BufferUnderflowException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::nio::BufferUnderflowException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::nio**

## 7.638 src/main/decaf/nio/ByteBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/internal/nio/ByteArrayPerspective.h>
```

### Data Structures

- class **decaf::nio::ByteBuffer**

*This class defines six categories of operations upon byte buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.639 src/main/decaf/nio/CharBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
#include <decaf/lang/CharSequence.h>
#include <decaf/lang/Appendable.h>
```

### Data Structures

- class **decaf::nio::CharBuffer**

*This class defines four categories of operations upon character buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.640 src/main/decaf/nio/DoubleBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
```

### Data Structures

- class **decaf::nio::DoubleBuffer**

*This class defines four categories of operations upon double buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.641 src/main/decaf/nio/FloatBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
```

### Data Structures

- class **decaf::nio::FloatBuffer**

*This class defines four categories of operations upon float buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**



## 7.642 src/main/decaf/nio/IntBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
```

### Data Structures

- class **decaf::nio::IntBuffer**

*This class defines four categories of operations upon int buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.643 src/main/decaf/nio/InvalidMarkException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
```

### Data Structures

- class **decaf::nio::InvalidMarkException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::nio**

## 7.644 src/main/decaf/nio/LongBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
```

### Data Structures

- class **decaf::nio::LongBuffer**

*This class defines four categories of operations upon long long buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.645 src/main/decaf/nio/ReadOnlyBufferException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
```

### Data Structures

- class **decaf::nio::ReadOnlyBufferException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::nio**

## 7.646 src/main/decaf/nio/ShortBuffer.h File Reference

```
#include <decaf/nio/Buffer.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/nio/BufferUnderflowException.h>
#include <decaf/nio/BufferOverflowException.h>
#include <decaf/nio/ReadOnlyBufferException.h>
```

### Data Structures

- class **decaf::nio::ShortBuffer**

*This class defines four categories of operations upon short buffers:.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::nio**

## 7.647 src/main/decaf/security/auth/x500/X500Principal.h File Reference

```
#include <string>
#include <vector>
#include <decaf/security/Principal.h>
#include <decaf/util/Map.h>
#include <decaf/io/InputStream.h>
```

### Data Structures

- class **decaf::security::auth::x500::X500Principal**

### Namespaces

- namespace **decaf**

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- namespace **decaf::security**
- namespace **decaf::security::auth**
- namespace **decaf::security::auth::x500**

## 7.648 src/main/decaf/security/cert/Certificate.h File Reference

```
#include <vector>
#include <decaf/util/Config.h>
#include <decaf/security/InvalidKeyException.h>
#include <decaf/security/NoSuchAlgorithmException.h>
#include <decaf/security/SignatureException.h>
#include <decaf/security/cert/CertificateEncodingException.h>
#include <decaf/security/cert/CertificateException.h>
```

### Data Structures

- class **decaf::security::cert::Certificate**  
*Base interface for all identity certificates.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.649 src/main/decaf/security/cert/CertificateEncodingException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/cert/CertificateException.h>
```

### Data Structures

- class **decaf::security::cert::CertificateEncodingException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**
- namespace **decaf::security::cert**



## 7.650 src/main/decaf/security/cert/CertificateException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/GeneralSecurityException.h>
```

### Data Structures

- class **decaf::security::cert::CertificateException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.651 src/main/decaf/security/cert/CertificateExpiredException.h File Reference

```
#include <decaf/util/Config.h>  
#include <decaf/security/cert/CertificateException.h>
```

### Data Structures

- class **decaf::security::cert::CertificateExpiredException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.652 src/main/decaf/security/cert/CertificateNotYetValidException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/cert/CertificateException.h>
```

### Data Structures

- class **decaf::security::cert::CertificateNotYetValidException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agree-*  
*ments.*
- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.653 src/main/decaf/security/cert/CertificateParsingException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/cert/CertificateException.h>
```

### Data Structures

- class **decaf::security::cert::CertificateParsingException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.654 src/main/decaf/security/cert/X509Certificate.h File Reference

```
#include <decaf/security/cert/Certificate.h>
#include <decaf/util/Config.h>
#include <decaf/util/Date.h>
```

### Data Structures

- class **decaf::security::cert::X509Certificate**  
*Base interface for all identity certificates.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**
- namespace **decaf::security::cert**

## 7.655 src/main/decaf/security/GeneralSecurityException.h File Reference

```
#include <decaf/util/Config.h>  
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::security::GeneralSecurityException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**

## 7.656 src/main/decaf/security/InvalidKeyException.h File Reference

```
#include <decaf/security/KeyException.h>
```

### Data Structures

- class **decaf::security::InvalidKeyException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**

## 7.657 src/main/decaf/security/Key.h File Reference

```
#include <vector>
#include <string>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::security::Key**  
*The **Key** (p. 1953) interface is the top-level interface for all keys.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**



## 7.658 src/main/decaf/security/KeyException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/GeneralSecurityException.h>
```

### Data Structures

- class **decaf::security::KeyException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**

## 7.659 src/main/decaf/security/NoSuchAlgorithmException.h File Reference

```
#include <decaf/security/GeneralSecurityException.h>
```

### Data Structures

- class **decaf::security::NoSuchAlgorithmException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**

## 7.660 src/main/decaf/security/NoSuchProviderException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/GeneralSecurityException.h>
```

### Data Structures

- class **decaf::security::NoSuchProviderException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**

## 7.661 src/main/decaf/security/Principal.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::security::Principal**

*Base interface for a principal, which can represent an individual or organization.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::security**

## 7.662 src/main/decaf/security/PublicKey.h File Reference

```
#include <decaf/security/Key.h>
```

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::security::PublicKey**  
*A public key.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::security**

## 7.663 src/main/decaf/security/SignatureException.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/security/GeneralSecurityException.h>
```

### Data Structures

- class **decaf::security::SignatureException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security**

## 7.664 src/main/decaf/security\_provider/SecurityProvider.h File Reference

### Data Structures

- class `decaf::security_provider::SecurityProvider`

### Namespaces

- namespace `decaf`  
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- namespace `decaf::security_provider`

## 7.665 src/main/decaf/security\_provider/SecurityProviderMap.h File Reference

```
#include <map>
#include <vector>
#include <string>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::security\_provider::SecurityProviderMap**  
*Lookup Map for Connector Factories.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security\_provider**



## 7.666 src/main/decaf/security\_provider/SecurityProviderRegistrar.h File Reference

```
#include <string>
#include <decaf/security_provider/SecurityProviderMap.h>
```

### Data Structures

- class **decaf::security\_provider::SecurityProviderRegistrar**  
*Registers the passed in provider into the provider map, this class can manage the lifetime of the registered provider (default behaviour).*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security\_provider**

## 7.667 src/main/decaf/security\_provider/unix/openssl/OpenSSLX500Principal.h File Reference

```
#include <decaf/security/auth/x500/X500Principal.h>
#include <openssl/x509.h>
```

### Data Structures

- class **decaf::security\_provider::unix::openssl::OpenSSLX500Principal**  
*The `OpenSSLX500Principal` (p. 2439) wraps around an `OpenSSL X509_NAME` structure.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::security\_provider**
- namespace **decaf::security\_provider::unix**
- namespace **decaf::security\_provider::unix::openssl**

## 7.668 src/main/decaf/security\_provider/unix/openssl/OpenSSLX509C File Reference

```
#include <decaf/security/cert/X509Certificate.h>
```

### Data Structures

- class **decaf::security\_provider::unix::openssl::OpenSSLX509Certificate**

### Namespaces

- namespace **decaf**  
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ments.*
- namespace **decaf::security\_provider**
- namespace **decaf::security\_provider::unix**
- namespace **decaf::security\_provider::unix::openssl**

## 7.669 src/main/decaf/util/AbstractCollection.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/Collection.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractCollection**< E >

*This class provides a skeletal implementation of the **Collection** (p. 1054) interface, to minimize the effort required to implement this interface.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.670 src/main/decaf/util/AbstractList.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/List.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractList**< **E** >

*This class provides a skeletal implementation of the **List** (p. 1984) interface to minimize the effort required to implement this interface backed by a "random access" data store (such as an array).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.671 src/main/decaf/util/AbstractMap.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/Map.h>
#include <decaf/util/Set.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractMap**< K, V, COMPARATOR >

*This class provides a skeletal implementation of the **Map** (p. 2094) interface, to minimize the effort required to implement this interface.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.672 src/main/decaf/util/AbstractQueue.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/Queue.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractQueue**< **E** >

*This class provides skeletal implementations of some **Queue** (p. 2671) operations.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.673 src/main/decaf/util/AbstractSequentialList.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/AbstractList.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractSequentialList**< E >

*This class provides a skeletal implementation of the **List** (p. 1984) interface to minimize the effort required to implement this interface backed by a "sequential access" data store (such as a linked list).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**



## 7.674 src/main/decaf/util/AbstractSet.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/Set.h>
#include <memory>
```

### Data Structures

- class **decaf::util::AbstractSet**< E >

*This class provides a skeletal implementation of the **Set** (p. 2905) interface to minimize the effort required to implement this interface.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.675 src/main/decaf/util/Collection.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/Iterable.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/concurrent/Synchronizable.h>
```

### Data Structures

- class **decaf::util::Collection< E >**  
*The root interface in the collection hierarchy.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.676 src/main/decaf/util/Comparator.h File Reference

```
#include <decaf/util/Config.h>
#include <algorithm>
#include <functional>
```

### Data Structures

- class **decaf::util::Comparator**< **T** >  
*A comparison function, which imposes a total ordering on some collection of objects.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**

## 7.677 src/main/decaf/util/comparators/Less.h File Reference

```
#include <decaf/util/Comparator.h>
```

### Data Structures

- class **decaf::util::comparators::Less**< **E** >  
*Simple **Less** (p. 1981) **Comparator** (p. 1086) that compares to elements to determine if the first is less than the second.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::comparators**

## 7.678 src/main/decaf/util/concurrent/atomic/AtomicBoolean.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::atomic::AtomicBoolean**

*A boolean value that may be updated atomically.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::atomic**

## 7.679 src/main/decaf/util/concurrent/atomic/AtomicInteger.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Number.h>
#include <string>
```

### Data Structures

- class **decaf::util::concurrent::atomic::AtomicInteger**  
*An int value that may be updated atomically.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::atomic**

## 7.680 src/main/decaf/util/concurrent/atomic/AtomicReference.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Long.h>
#include <apr_atomic.h>
```

### Data Structures

- class **decaf::util::concurrent::atomic::AtomicReference< T >**  
*An Pointer reference that may be updated atomically.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::atomic**

## 7.681 src/main/decaf/util/concurrent/BlockingQueue.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/AbstractQueue.h>
#include <decaf/util/concurrent/TimeUnit.h>
#include <decaf/lang/exceptions/InterruptedException.h>
```

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**



## 7.682 src/main/decaf/util/concurrent/BrokenBarrierException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::BrokenBarrierException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.683 src/main/decaf/util/concurrent/Callable.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::Callable< V >**  
*A task that returns a result and may throw an exception.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.684 src/main/decaf/util/concurrent/CancellationException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::CancellationException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.685 src/main/decaf/util/concurrent/Concurrent.h File Reference

```
#include <decaf/util/concurrent/Lock.h>
```

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

### Defines

- **#define WAIT\_INFINITE 0xFFFFFFFF**  
*The synchronized macro defines a mechanism for synchronizing a section of code.*
- **#define synchronized(W)**

#### 7.685.1 Define Documentation

##### 7.685.1.1 #define synchronized(W)

Value:

```
if(false){}
else
    for( decaf::util::concurrent::Lock lock_W(W);
        lock_W.isLocked(); lock_W.unlock() )
```

##### 7.685.1.2 #define WAIT\_INFINITE 0xFFFFFFFF

The synchronized macro defines a mechanism for synchronizing a section of code. The macro must be passed an object that implements the Synchronizable interface.

The macro works by creating a for loop that will loop exactly once, creating a Lock object that is scoped to the loop. Once the loop completes and exits the Lock object goes out of scope releasing the lock on object W. For added safety the if else is used because not all compilers restrict the lifetime of loop variables to the loop, they will however restrict them to the scope of the else.

The macro would be used as follows.

Synchronizable X;

```
somefunction() { synchronized(X) (p. 4126) { // Do something that needs synchronizing. } }
```

## 7.686 src/main/decaf/util/concurrent/ConcurrentMap.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Map.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
```

### Data Structures

- class **decaf::util::concurrent::ConcurrentMap**< **K**, **V**, **COMPARATOR** >  
*Interface for a **Map** (p. 2094) type that provides additional atomic putIfAbsent, remove, and replace methods alongside the already available **Map** (p. 2094) interface.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.687 src/main/decaf/util/concurrent/ConcurrentStlMap.h File Reference

```
#include <map>
#include <vector>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/ConcurrentMap.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Map.h>
```

### Data Structures

- class **decaf::util::concurrent::ConcurrentStlMap**< K, V, COMPARATOR >  
*Map* (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.688 src/main/decaf/util/concurrent/CountDownLatch.h File Reference

```
#include <decaf/util/concurrent/Mutex.h>
```

```
#include <decaf/util/Config.h>
```

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::CountDownLatch**

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.689 src/main/decaf/util/concurrent/Delayed.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/util/concurrent/TimeUnit.h>
```

### Data Structures

- class **decaf::util::concurrent::Delayed**  
*A mix-in style interface for marking objects that should be acted upon after a given delay.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**



## 7.690 src/main/decaf/util/concurrent/ExecutionException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::ExecutionException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.691 src/main/decaf/util/concurrent/Executor.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Runnable.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/util/concurrent/RejectedExecutionException.h>
```

### Data Structures

- class **decaf::util::concurrent::Executor**  
*An object that executes submitted **decaf.lang.Runnable** (p. 2816) tasks.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.692 src/main/decaf/util/concurrent/ExecutorService.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/concurrent/Executor.h>
#include <decaf/util/concurrent/TimeUnit.h>
#include <decaf/lang/exceptions/InterruptedException.h>
```

### Data Structures

- class **decaf::util::concurrent::ExecutorService**

*An **Executor** (p. 1608) that provides methods to manage termination and methods that can produce a **Future** (p. 1701) for tracking progress of one or more asynchronous tasks.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.693 src/main/decaf/util/concurrent/Future.h File Reference

### Data Structures

- class **decaf::util::concurrent::Future**< **V** >  
*A **Future** (p. 1701) represents the result of an asynchronous computation.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.694 src/main/decaf/util/concurrent/Lock.h File Reference

```
#include <decaf/lang/Exception.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::Lock**

*A wrapper class around a given synchronization mechanism that provides automatic release upon destruction.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.695 src/main/decaf/util/concurrent/locks/Lock.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/util/concurrent/locks/Condition.h>
```

### Data Structures

- class **decaf::util::concurrent::locks::Lock**

***Lock** (p. 2017) implementations provide more extensive locking operations than can be obtained using synchronized statements.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**

## 7.696 src/main/decaf/util/concurrent/locks/Condition.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Date.h>
#include <decaf/util/concurrent/TimeUnit.h>
#include <decaf/lang/exceptions/RuntimeException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/IllegalMonitorStateException.h>
```

### Data Structures

- class **decaf::util::concurrent::locks::Condition**

***Condition** (p. 1118) factors out the **Mutex** (p. 2385) monitor methods (wait, notify and notifyAll) into distinct objects to give the effect of having multiple wait-sets per object, by combining them with the use of arbitrary **Lock** (p. 2017) implementations.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**

## 7.697 src/main/decaf/util/concurrent/locks/LockSupport.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::locks::LockSupport**

*Basic thread blocking primitives for creating locks and other synchronization classes.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**
- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**



## 7.698 src/main/decaf/util/concurrent/locks/ReadWriteLock.h File Reference

### Data Structures

- class **decaf::util::concurrent::locks::ReadWriteLock**

*A **ReadWriteLock** (p. 2688) maintains a pair of associated locks, one for read-only operations and one for writing.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**

## 7.699 src/main/decaf/util/concurrent/locks/ReentrantLock.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/concurrent/locks/Lock.h>
#include <decaf/lang/Pointer.h>
```

### Data Structures

- class **decaf::util::concurrent::locks::ReentrantLock**  
*A reentrant mutual exclusion **Lock** (p. 2017) with extended capabilities.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**
- namespace **decaf::util::concurrent::locks**

## 7.700 src/main/decaf/util/concurrent/Mutex.h File Reference

```
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/lang/Thread.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::Mutex**

***Mutex** (p. 2985) object that offers recursive support on all platforms as well as providing the ability to use the standard wait / notify pattern used in languages like Java.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.701 src/main/decaf/util/concurrent/PooledThread.h File Reference

```
#include <decaf/lang/Thread.h>
#include <decaf/util/concurrent/PooledThreadListener.h>
#include <decaf/util/logging/LoggerDefines.h>
#include <decaf/util/Config.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::PooledThread**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.702 src/main/decaf/util/concurrent/PooledThreadListener.h File Reference

```
#include <decaf/lang/Exception.h>
```

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::PooledThreadListener**  
*Abstract Listener Interface for users of `ThreadPool` (p. 3175).*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.703 src/main/decaf/util/concurrent/RejectedExecutionException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::RejectedExecutionException**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.704 src/main/decaf/util/concurrent/RejectedExecutionHandler.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Runnable.h>
#include <decaf/util/concurrent/RejectedExecutionException.h>
```

### Data Structures

- class **decaf::util::concurrent::RejectedExecutionHandler**  
*A handler for tasks that cannot be executed by a **ThreadPoolExecutor** (p.??).*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.705 src/main/decaf/util/concurrent/Semaphore.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/RuntimeException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/util/concurrent/TimeUnit.h>
#include <memory>
```

### Data Structures

- class **decaf::util::concurrent::Semaphore**  
*A counting semaphore.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**



## 7.706 src/main/decaf/util/concurrent/Synchronizable.h File Reference

```
#include <decaf/lang/exceptions/RuntimeException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/exceptions/IllegalMonitorStateException.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::Synchronizable**  
*The interface for all synchronizable objects (that is, objects that can be locked and unlocked).*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.707 src/main/decaf/util/concurrent/SynchronousQueue.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/concurrent/BlockingQueue.h>
#include <vector>
```

### Data Structures

- class **decaf::util::concurrent::SynchronousQueue< E >**  
*A BlockingQueue blocking queue} in which each insert operation must wait for a corresponding remove operation by another thread, and vice versa.*
- class **decaf::util::concurrent::SynchronousQueue< E >::EmptyIterator**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.708 src/main/decaf/util/concurrent/TaskListener.h File Reference

```
#include <decaf/lang/Runnable.h>
#include <decaf/lang/Exception.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::TaskListener**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.709 src/main/decaf/util/concurrent/ThreadFactory.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::concurrent::ThreadFactory**  
*public interface **ThreadFactory** (p. 3172)*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::lang**
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.710 src/main/decaf/util/concurrent/ThreadPool.h File Reference

```
#include <decaf/lang/Runnable.h>
#include <decaf/util/concurrent/PooledThread.h>
#include <decaf/util/concurrent/PooledThreadListener.h>
#include <decaf/util/concurrent/TaskListener.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/StlQueue.h>
#include <decaf/util/logging/LoggerDefines.h>
#include <decaf/util/Config.h>
#include <vector>
```

### Data Structures

- class **decaf::util::concurrent::ThreadPool**

*Defines a Thread Pool object that implements the functionality of pooling threads to perform user tasks.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.711 src/main/decaf/util/concurrent/TimeoutException.h File Reference

```
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::concurrent::TimeoutException**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.712 src/main/decaf/util/concurrent/TimeUnit.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/exceptions/InterruptedException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
```

### Data Structures

- class **decaf::util::concurrent::TimeUnit**

*A **TimeUnit** (p. 3205) represents time durations at a given unit of granularity and provides utility methods to convert across units, and to perform timing and delay operations in these units.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::lang**
- namespace **decaf::util**
- namespace **decaf::util::concurrent**

## 7.713 src/main/decaf/util/Date.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <string>
```

### Data Structures

- class **decaf::util::Date**  
*Wrapper class around a time value in milliseconds.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**



## 7.714 src/main/decaf/util/Iterator.h File Reference

```
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
```

### Data Structures

- class **decaf::util::Iterator**< **T** >  
*Defines an object that can be used to iterate over the elements of a collection.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.715 src/main/decaf/util/List.h File Reference

```
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/Config.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/AbstractCollection.h>
#include <decaf/util/ListIterator.h>
```

### Data Structures

- class **decaf::util::List**< **E** >  
*An ordered collection (also known as a sequence).*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.716 src/main/decaf/util/ListIterator.h File Reference

```
#include <decaf/util/Iterator.h>
#include <decaf/util/Config.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **decaf::util::ListIterator**< **E** >

*An iterator for lists that allows the programmer to traverse the list in either direction, modify the list during iteration, and obtain the iterator's current position in the list.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.717 src/main/decaf/util/logging/ConsoleHandler.h File Reference

```
#include <decaf/util/logging/StreamHandler.h>  
#include <decaf/io/StandardErrorOutputStream.h>
```

## 7.718 src/main/decaf/util/logging/Filter.h File Reference

```
#include <decaf/util/logging/LogRecord.h>
```

### Data Structures

- class **decaf::util::logging::Filter**

*A **Filter** (p. 1630) can be used to provide fine grain control over what is logged, beyond the control provided by log levels.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.719 src/main/decaf/util/logging/Formatter.h File Reference

### Data Structures

- class **decaf::util::logging::Formatter**  
*A **Formatter** (p. 1699) provides support for formatting LogRecords.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.720 src/main/decaf/util/logging/Handler.h File Reference

```
#include <decaf/io/Closeable.h>
```

```
#include <decaf/util/logging/LogRecord.h>
```

### Data Structures

- class **decaf::util::logging::Handler**

*A **Handler** (p. 1709) object takes log messages from a **Logger** (p. 2028) and exports them.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.721 src/main/decaf/util/logging/Logger.h File Reference

```
#include <decaf/util/logging/LoggerCommon.h>
#include <decaf/util/logging/LogRecord.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/util/Config.h>
#include <list>
#include <string>
#include <stdarg.h>
```

### Data Structures

- class `decaf::util::logging::Logger`

### Namespaces

- namespace `decaf`  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace `decaf::util`
- namespace `decaf::util::logging`



## 7.722 src/main/decaf/util/logging/LoggerCommon.h File Reference

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

### Enumerations

- enum **decaf::util::logging::Level** {  
    **decaf::util::logging::Off**, **decaf::util::logging::Null**, **decaf::util::logging::Markblock**,  
    **decaf::util::logging::Debug**,  
    **decaf::util::logging::Info**, **decaf::util::logging::Warn**, **decaf::util::logging::Error**,  
    **decaf::util::logging::Fatal**,  
    **decaf::util::logging::Throwing** }  
*Defines an enumeration for logging levels.*

## 7.723 src/main/decaf/util/logging/LoggerDefines.h File Reference

```
#include <decaf/util/logging/SimpleLogger.h>
#include <sstream>
```

### Defines

- **#define LOGDECAF\_DECLARE(loggerName) static decaf::util::logging::SimpleLogger loggerName;**
- **#define LOGDECAF\_INITIALIZE(loggerName, className, loggerFamily) decaf::util::logging::SimpleLogger className::loggerName(loggerFamily);**
- **#define LOGDECAF\_DECLARE\_LOCAL(loggerName) decaf::util::logging::Logger loggerName;**
- **#define LOGDECAF\_DEBUG(logger, message) logger.debug(\_\_FILE\_\_, \_\_LINE\_\_, message);**
- **#define LOGDECAF\_DEBUG\_1(logger, message, value)**
- **#define LOGDECAF\_INFO(logger, message) logger.info(\_\_FILE\_\_, \_\_LINE\_\_, message);**
- **#define LOGDECAF\_ERROR(logger, message) logger.error(\_\_FILE\_\_, \_\_LINE\_\_, message);**
- **#define LOGDECAF\_WARN(logger, message) logger.warn(\_\_FILE\_\_, \_\_LINE\_\_, message);**
- **#define LOGDECAF\_FATAL(logger, message) logger.fatal(\_\_FILE\_\_, \_\_LINE\_\_, message);**

### 7.723.1 Define Documentation

**7.723.1.1 #define LOGDECAF\_DEBUG(logger, message) logger.debug(\_\_FILE\_\_, \_\_LINE\_\_, message);**

**7.723.1.2 #define LOGDECAF\_DEBUG\_1(logger, message, value)**

Value:

```
;
{
    std::ostringstream ostream;
    ostream << message << value;
    logger.debug(__FILE__, __LINE__, ostream.str());
}
```

- 7.723.1.3 `#define LOGDECAF_DECLARE(loggerName) static decaf::util::logging::SimpleLogger loggerName;`
- 7.723.1.4 `#define LOGDECAF_DECLARE_LOCAL(loggerName) decaf::util::logging::Logger loggerName;`
- 7.723.1.5 `#define LOGDECAF_ERROR(logger, message) logger.error(__FILE__, __LINE__, message);`
- 7.723.1.6 `#define LOGDECAF_FATAL(logger, message) logger.fatal(__FILE__, __LINE__, message);`
- 7.723.1.7 `#define LOGDECAF_INFO(logger, message) logger.info(__FILE__, __LINE__, message);`
- 7.723.1.8 `#define LOGDECAF_INITIALIZE(loggerName, className, loggerFamily) decaf::util::logging::SimpleLogger className::loggerName(loggerFamily);`
- 7.723.1.9 `#define LOGDECAF_WARN(logger, message) logger.warn(__FILE__, __LINE__, message);`

## 7.724 src/main/decaf/util/logging/LoggerHierarchy.h File Reference

### Data Structures

- class `decaf::util::logging::LoggerHierarchy`

### Namespaces

- namespace `decaf`

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- namespace `decaf::util`
- namespace `decaf::util::logging`

## 7.725 src/main/decaf/util/logging/LogManager.h File Reference

```
#include <map>
#include <list>
#include <string>
#include <vector>
#include <decaf/util/Properties.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::logging::LogManager**

*There is a single global **LogManager** (p. 2045) object that is used to maintain a set of shared state about Loggers and log services.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.726 src/main/decaf/util/logging/LogRecord.h File Reference

```
#include <decaf/util/logging/LoggerCommon.h>
#include <decaf/util/Config.h>
#include <string>
```

### Data Structures

- class **decaf::util::logging::LogRecord**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.727 src/main/decaf/util/logging/LogWriter.h File Reference

```
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::util::logging::LogWriter**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.728 src/main/decaf/util/logging/MarkBlockLogger.h File Reference

```
#include <decaf/util/logging/Logger.h>
```

### Data Structures

- class **decaf::util::logging::MarkBlockLogger**  
*Defines a class that can be used to mark the entry and exit from scoped blocks.*

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**
- namespace **decaf::util::logging**



## 7.729 src/main/decaf/util/logging/PropertiesChangeListener.h File Reference

```
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::logging::PropertiesChangeListener**

*Defines the interface that classes can use to listen for change events on **Properties** (p. 2657).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.730 src/main/decaf/util/logging/SimpleFormatter.h File Reference

```
#include <decaf/util/logging/formatter.h>
```

### Data Structures

- class **decaf::util::logging::SimpleFormatter**

*Print a brief summary of the **LogRecord** (p. 2050) in a human readable format.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.731 src/main/decaf/util/logging/SimpleLogger.h File Reference

```
#include <string>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::logging::SimpleLogger**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.732 src/main/decaf/util/logging/StreamHandler.h File Reference

```
#include <decaf/util/logging/LoggerCommon.h>
#include <decaf/util/logging/Handler.h>
#include <decaf/util/logging/Formatter.h>
#include <decaf/util/logging/Filter.h>
#include <decaf/io/OutputStream.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/InvalidStateException.h>
#include <decaf/util/concurrent/Concurrent.h>
#include <decaf/util/Config.h>
```

### Data Structures

- class **decaf::util::logging::StreamHandler**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**
- namespace **decaf::util::logging**

## 7.733 src/main/decaf/util/Map.h File Reference

```
#include <functional>
#include <vector>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::util::Map**< **K**, **V**, **COMPARATOR** >  
***Map** (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.*
- class **decaf::util::Map**< **K**, **V**, **COMPARATOR** >::**Entry**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**

## 7.734 src/main/decaf/util/PriorityQueue.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/util/Collection.h>
#include <decaf/util/AbstractQueue.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/Comparator.h>
#include <decaf/util/comparators/Less.h>
#include <decaf/lang/Math.h>
#include <decaf/lang/Pointer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <memory>
```

### Data Structures

- class **decaf::util::PriorityQueue< E >**  
*An unbounded priority queue based on a binary heap algorithm.*
- class **decaf::util::PriorityQueue< E >::PriorityQueueIterator**
- class **decaf::util::PriorityQueue< E >::ConstPriorityQueueIterator**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.735 src/main/decaf/util/Properties.h File Reference

```
#include <memory>
#include <vector>
#include <string>
#include <decaf/util/Config.h>
#include <decaf/io/InputStream.h>
#include <decaf/io/OutputStream.h>
#include <decaf/io/Reader.h>
#include <decaf/io/Writer.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/io/IOException.h>
```

### Data Structures

- class **decaf::util::Properties**  
*Java-like properties class for mapping string names to string values.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.736 src/main/decaf/util/Random.h File Reference

```
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <decaf/util/Config.h>
#include <vector>
#include <cmath>
```

### Data Structures

- class **decaf::util::Random**

***Random** (p. 2677) Value Generator which is used to generate a stream of pseudorandom numbers.*

### Namespaces

- namespace **decaf**

*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*

- namespace **decaf::util**



## 7.737 src/main/decaf/util/Set.h File Reference

```
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/AbstractCollection.h>
```

### Data Structures

- class **decaf::util::Set**< **E** >  
*A collection that contains no duplicate elements.*

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.738 src/main/decaf/util/StlList.h File Reference

```
#include <list>
#include <algorithm>
#include <memory>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/lang/exceptions/IndexOutOfBoundsException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Config.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/ListIterator.h>
#include <decaf/util/List.h>
```

### Data Structures

- class **decaf::util::StlList< E >**  
*List* (p. 1984) class that wraps the STL list object to provide a simpler interface and additional methods not provided by the STL type.
- class **decaf::util::StlList< E >::StlListIterator**
- class **decaf::util::StlList< E >::ConstStlListIterator**

### Namespaces

- namespace **decaf**  
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- namespace **decaf::util**

## 7.739 src/main/decaf/util/StlMap.h File Reference

```
#include <map>
#include <vector>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Map.h>
```

### Data Structures

- class **decaf::util::StlMap< K, V, COMPARATOR >**  
*Map* (p. 2094) template that wraps around a `std::map` to provide a more user-friendly interface and to provide common functions that do not exist in `std::map`.

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.740 src/main/decaf/util/StlQueue.h File Reference

```
#include <list>
#include <vector>
#include <decaf/util/Iterator.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/lang/Exception.h>
```

### Data Structures

- class **decaf::util::StlQueue< T >**  
*The **Queue** (p. 2671) class accepts messages with an **psuh(m)** command where *m* is the message to be queued.*
- class **decaf::util::StlQueue< T >::QueueIterator**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.741 src/main/decaf/util/StlSet.h File Reference

```
#include <set>
#include <vector>
#include <memory>
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/concurrent/Synchronizable.h>
#include <decaf/util/concurrent/Mutex.h>
#include <decaf/util/Iterator.h>
#include <decaf/util/AbstractSet.h>
```

### Data Structures

- class **decaf::util::StlSet< E >**  
*Set (p.2905) template that wraps around a std::set to provide a more user-friendly interface and to provide common functions that do not exist in std::set.*
- class **decaf::util::StlSet< E >::SetIterator**
- class **decaf::util::StlSet< E >::ConstSetIterator**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.742 src/main/decaf/util/StringTokenizer.h File Reference

```
#include <decaf/lang/exceptions/NoSuchElementException.h>
#include <decaf/util/Config.h>
#include <string>
```

### Data Structures

- class **decaf::util::StringTokenizer**

### Namespaces

- namespace **decaf**  
*Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.*
- namespace **decaf::util**

## 7.743 src/main/decaf/util/Timer.h File Reference

```
#include <memory>
#include <decaf/util/Config.h>
#include <decaf/util/Date.h>
#include <decaf/lang/Pointer.h>
#include <decaf/lang/exceptions/NullPointerException.h>
#include <decaf/lang/exceptions/IllegalStateException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
```

### Data Structures

- class **decaf::util::Timer**

*A facility for threads to schedule tasks for future execution in a background thread.*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

## 7.744 src/main/decaf/util/TimerTask.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Runnable.h>
#include <decaf/util/concurrent/Mutex.h>
```

### Data Structures

- class **decaf::util::TimerTask**

*A Base class for a task object that can be scheduled for one-time or repeated execution by a **Timer** (p. 3188).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::internal**
- namespace **decaf::internal::util**
- namespace **decaf::util**



## 7.745 src/main/decaf/util/UUID.h File Reference

```
#include <decaf/util/Config.h>
#include <decaf/lang/Comparable.h>
#include <decaf/lang/exceptions/UnsupportedOperationException.h>
#include <decaf/lang/exceptions/IllegalArgumentException.h>
#include <apr_uuid.h>
#include <string>
```

### Data Structures

- class **decaf::util::UUID**

*A class that represents an immutable universally unique identifier (**UUID** (p. 3356)).*

### Namespaces

- namespace **decaf**

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- namespace **decaf::util**

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Generated on Tue Feb 9 12:26:28 2010 for activemq-cpp-3.1.0 by Doxygen

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