| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/nio/ByteBuffer.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/nio//class-useByteBuffer.html)    [**NO FRAMES**](http://docs.google.com/ByteBuffer.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Class**

**java.nio.ByteBuffer**

| Packages that use [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| [**java.lang**](#3znysh7) | Provides classes that are fundamental to the design of the Java programming language. |
| [**java.nio**](#2et92p0) | Defines buffers, which are containers for data, and provides an overview of the other NIO packages. |
| [**java.nio.channels**](#tyjcwt) | Defines channels, which represent connections to entities that are capable of performing I/O operations, such as files and sockets; defines selectors, for multiplexed, non-blocking I/O operations. |
| [**java.nio.charset**](#3dy6vkm) | Defines charsets, decoders, and encoders, for translating between bytes and Unicode characters. |
| [**java.security**](#1t3h5sf) | Provides the classes and interfaces for the security framework. |
| [**javax.crypto**](#4d34og8) | Provides the classes and interfaces for cryptographic operations. |
| [**javax.net.ssl**](#2s8eyo1) | Provides classes for the secure socket package. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.lang](http://docs.google.com/java/lang/package-summary.html) | |
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| Methods in [java.lang](http://docs.google.com/java/lang/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| protected  [Class](http://docs.google.com/java/lang/Class.html)<?> | **ClassLoader.**[**defineClass**](http://docs.google.com/java/lang/ClassLoader.html#defineClass(java.lang.String,%20java.nio.ByteBuffer,%20java.security.ProtectionDomain))([String](http://docs.google.com/java/lang/String.html) name, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) b, [ProtectionDomain](http://docs.google.com/java/security/ProtectionDomain.html) protectionDomain)            Converts a [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) into an instance of class Class, with an optional ProtectionDomain. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.nio](http://docs.google.com/java/nio/package-summary.html) | |
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| Subclasses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.nio](http://docs.google.com/java/nio/package-summary.html) | |
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| class | [**MappedByteBuffer**](http://docs.google.com/java/nio/MappedByteBuffer.html)            A direct byte buffer whose content is a memory-mapped region of a file. |

| Methods in [java.nio](http://docs.google.com/java/nio/package-summary.html) that return [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| static [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**allocate**](http://docs.google.com/java/nio/ByteBuffer.html#allocate(int))(int capacity)            Allocates a new byte buffer. |
| static [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**allocateDirect**](http://docs.google.com/java/nio/ByteBuffer.html#allocateDirect(int))(int capacity)            Allocates a new direct byte buffer. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**asReadOnlyBuffer**](http://docs.google.com/java/nio/ByteBuffer.html#asReadOnlyBuffer())()            Creates a new, read-only byte buffer that shares this buffer's content. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**compact**](http://docs.google.com/java/nio/ByteBuffer.html#compact())()            Compacts this buffer  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**duplicate**](http://docs.google.com/java/nio/ByteBuffer.html#duplicate())()            Creates a new byte buffer that shares this buffer's content. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**get**](http://docs.google.com/java/nio/ByteBuffer.html#get(byte%5B%5D))(byte[] dst)            Relative bulk *get* method. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**get**](http://docs.google.com/java/nio/ByteBuffer.html#get(byte%5B%5D,%20int,%20int))(byte[] dst, int offset, int length)            Relative bulk *get* method. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**order**](http://docs.google.com/java/nio/ByteBuffer.html#order(java.nio.ByteOrder))([ByteOrder](http://docs.google.com/java/nio/ByteOrder.html) bo)            Modifies this buffer's byte order. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(byte))(byte b)            Relative *put* method  *(optional operation)*. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(byte%5B%5D))(byte[] src)            Relative bulk *put* method  *(optional operation)*. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(byte%5B%5D,%20int,%20int))(byte[] src, int offset, int length)            Relative bulk *put* method  *(optional operation)*. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src)            Relative bulk *put* method  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(int,%20byte))(int index, byte b)            Absolute *put* method  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putChar**](http://docs.google.com/java/nio/ByteBuffer.html#putChar(char))(char value)            Relative *put* method for writing a char value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putChar**](http://docs.google.com/java/nio/ByteBuffer.html#putChar(int,%20char))(int index, char value)            Absolute *put* method for writing a char value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putDouble**](http://docs.google.com/java/nio/ByteBuffer.html#putDouble(double))(double value)            Relative *put* method for writing a double value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putDouble**](http://docs.google.com/java/nio/ByteBuffer.html#putDouble(int,%20double))(int index, double value)            Absolute *put* method for writing a double value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putFloat**](http://docs.google.com/java/nio/ByteBuffer.html#putFloat(float))(float value)            Relative *put* method for writing a float value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putFloat**](http://docs.google.com/java/nio/ByteBuffer.html#putFloat(int,%20float))(int index, float value)            Absolute *put* method for writing a float value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putInt**](http://docs.google.com/java/nio/ByteBuffer.html#putInt(int))(int value)            Relative *put* method for writing an int value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putInt**](http://docs.google.com/java/nio/ByteBuffer.html#putInt(int,%20int))(int index, int value)            Absolute *put* method for writing an int value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putLong**](http://docs.google.com/java/nio/ByteBuffer.html#putLong(int,%20long))(int index, long value)            Absolute *put* method for writing a long value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putLong**](http://docs.google.com/java/nio/ByteBuffer.html#putLong(long))(long value)            Relative *put* method for writing a long value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putShort**](http://docs.google.com/java/nio/ByteBuffer.html#putShort(int,%20short))(int index, short value)            Absolute *put* method for writing a short value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**putShort**](http://docs.google.com/java/nio/ByteBuffer.html#putShort(short))(short value)            Relative *put* method for writing a short value  *(optional operation)*. |
| abstract  [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**slice**](http://docs.google.com/java/nio/ByteBuffer.html#slice())()            Creates a new byte buffer whose content is a shared subsequence of this buffer's content. |
| static [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**wrap**](http://docs.google.com/java/nio/ByteBuffer.html#wrap(byte%5B%5D))(byte[] array)            Wraps a byte array into a buffer. |
| static [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**wrap**](http://docs.google.com/java/nio/ByteBuffer.html#wrap(byte%5B%5D,%20int,%20int))(byte[] array, int offset, int length)            Wraps a byte array into a buffer. |

| Methods in [java.nio](http://docs.google.com/java/nio/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| int | **ByteBuffer.**[**compareTo**](http://docs.google.com/java/nio/ByteBuffer.html#compareTo(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) that)            Compares this buffer to another. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **ByteBuffer.**[**put**](http://docs.google.com/java/nio/ByteBuffer.html#put(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src)            Relative bulk *put* method  *(optional operation)*. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.nio.channels](http://docs.google.com/java/nio/channels/package-summary.html) | |
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| Methods in [java.nio.channels](http://docs.google.com/java/nio/channels/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| abstract  int | **SocketChannel.**[**read**](http://docs.google.com/java/nio/channels/SocketChannel.html#read(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst) |
| abstract  int | **DatagramChannel.**[**read**](http://docs.google.com/java/nio/channels/DatagramChannel.html#read(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Reads a datagram from this channel. |
| abstract  int | **FileChannel.**[**read**](http://docs.google.com/java/nio/channels/FileChannel.html#read(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Reads a sequence of bytes from this channel into the given buffer. |
| int | **ReadableByteChannel.**[**read**](http://docs.google.com/java/nio/channels/ReadableByteChannel.html#read(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Reads a sequence of bytes from this channel into the given buffer. |
| long | **SocketChannel.**[**read**](http://docs.google.com/java/nio/channels/SocketChannel.html#read(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts) |
| long | **DatagramChannel.**[**read**](http://docs.google.com/java/nio/channels/DatagramChannel.html#read(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts)            Reads a datagram from this channel. |
| long | **ScatteringByteChannel.**[**read**](http://docs.google.com/java/nio/channels/ScatteringByteChannel.html#read(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts)            Reads a sequence of bytes from this channel into the given buffers. |
| long | **FileChannel.**[**read**](http://docs.google.com/java/nio/channels/FileChannel.html#read(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts)            Reads a sequence of bytes from this channel into the given buffers. |
| abstract  long | **SocketChannel.**[**read**](http://docs.google.com/java/nio/channels/SocketChannel.html#read(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length) |
| abstract  long | **DatagramChannel.**[**read**](http://docs.google.com/java/nio/channels/DatagramChannel.html#read(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length)            Reads a datagram from this channel. |
| long | **ScatteringByteChannel.**[**read**](http://docs.google.com/java/nio/channels/ScatteringByteChannel.html#read(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length)            Reads a sequence of bytes from this channel into a subsequence of the given buffers. |
| abstract  long | **FileChannel.**[**read**](http://docs.google.com/java/nio/channels/FileChannel.html#read(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length)            Reads a sequence of bytes from this channel into a subsequence of the given buffers. |
| abstract  int | **FileChannel.**[**read**](http://docs.google.com/java/nio/channels/FileChannel.html#read(java.nio.ByteBuffer,%20long))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst, long position)            Reads a sequence of bytes from this channel into the given buffer, starting at the given file position. |
| abstract  [SocketAddress](http://docs.google.com/java/net/SocketAddress.html) | **DatagramChannel.**[**receive**](http://docs.google.com/java/nio/channels/DatagramChannel.html#receive(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Receives a datagram via this channel. |
| abstract  int | **DatagramChannel.**[**send**](http://docs.google.com/java/nio/channels/DatagramChannel.html#send(java.nio.ByteBuffer,%20java.net.SocketAddress))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [SocketAddress](http://docs.google.com/java/net/SocketAddress.html) target)            Sends a datagram via this channel. |
| abstract  int | **SocketChannel.**[**write**](http://docs.google.com/java/nio/channels/SocketChannel.html#write(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src) |
| abstract  int | **DatagramChannel.**[**write**](http://docs.google.com/java/nio/channels/DatagramChannel.html#write(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src)            Writes a datagram to this channel. |
| abstract  int | **FileChannel.**[**write**](http://docs.google.com/java/nio/channels/FileChannel.html#write(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src)            Writes a sequence of bytes to this channel from the given buffer. |
| int | **WritableByteChannel.**[**write**](http://docs.google.com/java/nio/channels/WritableByteChannel.html#write(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src)            Writes a sequence of bytes to this channel from the given buffer. |
| long | **SocketChannel.**[**write**](http://docs.google.com/java/nio/channels/SocketChannel.html#write(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs) |
| long | **DatagramChannel.**[**write**](http://docs.google.com/java/nio/channels/DatagramChannel.html#write(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs)            Writes a datagram to this channel. |
| long | **GatheringByteChannel.**[**write**](http://docs.google.com/java/nio/channels/GatheringByteChannel.html#write(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs)            Writes a sequence of bytes to this channel from the given buffers. |
| long | **FileChannel.**[**write**](http://docs.google.com/java/nio/channels/FileChannel.html#write(java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs)            Writes a sequence of bytes to this channel from the given buffers. |
| abstract  long | **SocketChannel.**[**write**](http://docs.google.com/java/nio/channels/SocketChannel.html#write(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length) |
| abstract  long | **DatagramChannel.**[**write**](http://docs.google.com/java/nio/channels/DatagramChannel.html#write(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length)            Writes a datagram to this channel. |
| long | **GatheringByteChannel.**[**write**](http://docs.google.com/java/nio/channels/GatheringByteChannel.html#write(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length)            Writes a sequence of bytes to this channel from a subsequence of the given buffers. |
| abstract  long | **FileChannel.**[**write**](http://docs.google.com/java/nio/channels/FileChannel.html#write(java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length)            Writes a sequence of bytes to this channel from a subsequence of the given buffers. |
| abstract  int | **FileChannel.**[**write**](http://docs.google.com/java/nio/channels/FileChannel.html#write(java.nio.ByteBuffer,%20long))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, long position)            Writes a sequence of bytes to this channel from the given buffer, starting at the given file position. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.nio.charset](http://docs.google.com/java/nio/charset/package-summary.html) | |
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| Methods in [java.nio.charset](http://docs.google.com/java/nio/charset/package-summary.html) that return [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **CharsetEncoder.**[**encode**](http://docs.google.com/java/nio/charset/CharsetEncoder.html#encode(java.nio.CharBuffer))([CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) in)            Convenience method that encodes the remaining content of a single input character buffer into a newly-allocated byte buffer. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **Charset.**[**encode**](http://docs.google.com/java/nio/charset/Charset.html#encode(java.nio.CharBuffer))([CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) cb)            Convenience method that encodes Unicode characters into bytes in this charset. |
| [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | **Charset.**[**encode**](http://docs.google.com/java/nio/charset/Charset.html#encode(java.lang.String))([String](http://docs.google.com/java/lang/String.html) str)            Convenience method that encodes a string into bytes in this charset. |

| Methods in [java.nio.charset](http://docs.google.com/java/nio/charset/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| [CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) | **CharsetDecoder.**[**decode**](http://docs.google.com/java/nio/charset/CharsetDecoder.html#decode(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in)            Convenience method that decodes the remaining content of a single input byte buffer into a newly-allocated character buffer. |
| [CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) | **Charset.**[**decode**](http://docs.google.com/java/nio/charset/Charset.html#decode(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) bb)            Convenience method that decodes bytes in this charset into Unicode characters. |
| [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetDecoder.**[**decode**](http://docs.google.com/java/nio/charset/CharsetDecoder.html#decode(java.nio.ByteBuffer,%20java.nio.CharBuffer,%20boolean))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in, [CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) out, boolean endOfInput)            Decodes as many bytes as possible from the given input buffer, writing the results to the given output buffer. |
| protected abstract  [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetDecoder.**[**decodeLoop**](http://docs.google.com/java/nio/charset/CharsetDecoder.html#decodeLoop(java.nio.ByteBuffer,%20java.nio.CharBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in, [CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) out)            Decodes one or more bytes into one or more characters. |
| [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetEncoder.**[**encode**](http://docs.google.com/java/nio/charset/CharsetEncoder.html#encode(java.nio.CharBuffer,%20java.nio.ByteBuffer,%20boolean))([CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) in, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) out, boolean endOfInput)            Encodes as many characters as possible from the given input buffer, writing the results to the given output buffer. |
| protected abstract  [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetEncoder.**[**encodeLoop**](http://docs.google.com/java/nio/charset/CharsetEncoder.html#encodeLoop(java.nio.CharBuffer,%20java.nio.ByteBuffer))([CharBuffer](http://docs.google.com/java/nio/CharBuffer.html) in, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) out)            Encodes one or more characters into one or more bytes. |
| [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetEncoder.**[**flush**](http://docs.google.com/java/nio/charset/CharsetEncoder.html#flush(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) out)            Flushes this encoder. |
| protected  [CoderResult](http://docs.google.com/java/nio/charset/CoderResult.html) | **CharsetEncoder.**[**implFlush**](http://docs.google.com/java/nio/charset/CharsetEncoder.html#implFlush(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) out)            Flushes this encoder. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [java.security](http://docs.google.com/java/security/package-summary.html) | |
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| Methods in [java.security](http://docs.google.com/java/security/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| protected  [Class](http://docs.google.com/java/lang/Class.html)<?> | **SecureClassLoader.**[**defineClass**](http://docs.google.com/java/security/SecureClassLoader.html#defineClass(java.lang.String,%20java.nio.ByteBuffer,%20java.security.CodeSource))([String](http://docs.google.com/java/lang/String.html) name, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) b, [CodeSource](http://docs.google.com/java/security/CodeSource.html) cs)            Converts a [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) into an instance of class Class, with an optional CodeSource. |
| protected  void | **SignatureSpi.**[**engineUpdate**](http://docs.google.com/java/security/SignatureSpi.html#engineUpdate(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input)            Updates the data to be signed or verified using the specified ByteBuffer. |
| protected  void | **MessageDigestSpi.**[**engineUpdate**](http://docs.google.com/java/security/MessageDigestSpi.html#engineUpdate(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input)            Update the digest using the specified ByteBuffer. |
| void | **Signature.**[**update**](http://docs.google.com/java/security/Signature.html#update(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) data)            Updates the data to be signed or verified using the specified ByteBuffer. |
| void | **MessageDigest.**[**update**](http://docs.google.com/java/security/MessageDigest.html#update(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input)            Update the digest using the specified ByteBuffer. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [javax.crypto](http://docs.google.com/javax/crypto/package-summary.html) | |
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| Methods in [javax.crypto](http://docs.google.com/javax/crypto/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
| --- | --- |
| int | **Cipher.**[**doFinal**](http://docs.google.com/javax/crypto/Cipher.html#doFinal(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) output)            Encrypts or decrypts data in a single-part operation, or finishes a multiple-part operation. |
| protected  int | **CipherSpi.**[**engineDoFinal**](http://docs.google.com/javax/crypto/CipherSpi.html#engineDoFinal(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) output)            Encrypts or decrypts data in a single-part operation, or finishes a multiple-part operation. |
| protected  void | **MacSpi.**[**engineUpdate**](http://docs.google.com/javax/crypto/MacSpi.html#engineUpdate(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input)            Processes input.remaining() bytes in the ByteBuffer input, starting at input.position(). |
| protected  int | **CipherSpi.**[**engineUpdate**](http://docs.google.com/javax/crypto/CipherSpi.html#engineUpdate(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) output)            Continues a multiple-part encryption or decryption operation (depending on how this cipher was initialized), processing another data part. |
| void | **Mac.**[**update**](http://docs.google.com/javax/crypto/Mac.html#update(java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input)            Processes input.remaining() bytes in the ByteBuffer input, starting at input.position(). |
| int | **Cipher.**[**update**](http://docs.google.com/javax/crypto/Cipher.html#update(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) input, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) output)            Continues a multiple-part encryption or decryption operation (depending on how this cipher was initialized), processing another data part. |

| Uses of [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) | |
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| Methods in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) with parameters of type [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) | |
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| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**unwrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#unwrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to decode SSL/TLS network data into a plaintext application data buffer. |
| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**unwrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#unwrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts)            Attempts to decode SSL/TLS network data into a sequence of plaintext application data buffers. |
| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**unwrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#unwrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer%5B%5D))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts)            Attempts to decode SSL/TLS network data into a sequence of plaintext application data buffers. |
| abstract  [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**unwrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#unwrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length)            Attempts to decode SSL/TLS network data into a subsequence of plaintext application data buffers. |
| abstract  [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**unwrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#unwrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer%5B%5D,%20int,%20int))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] dsts, int offset, int length)            Attempts to decode SSL/TLS network data into a subsequence of plaintext application data buffers. |
| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**wrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#wrap(java.nio.ByteBuffer%5B%5D,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to encode plaintext bytes from a sequence of data buffers into SSL/TLS network data. |
| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**wrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#wrap(java.nio.ByteBuffer%5B%5D,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to encode plaintext bytes from a sequence of data buffers into SSL/TLS network data. |
| abstract  [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**wrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#wrap(java.nio.ByteBuffer%5B%5D,%20int,%20int,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to encode plaintext bytes from a subsequence of data buffers into SSL/TLS network data. |
| abstract  [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**wrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#wrap(java.nio.ByteBuffer%5B%5D,%20int,%20int,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html)[] srcs, int offset, int length, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to encode plaintext bytes from a subsequence of data buffers into SSL/TLS network data. |
| [SSLEngineResult](http://docs.google.com/javax/net/ssl/SSLEngineResult.html) | **SSLEngine.**[**wrap**](http://docs.google.com/javax/net/ssl/SSLEngine.html#wrap(java.nio.ByteBuffer,%20java.nio.ByteBuffer))([ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) src, [ByteBuffer](http://docs.google.com/java/nio/ByteBuffer.html) dst)            Attempts to encode a buffer of plaintext application data into SSL/TLS network data. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/nio/ByteBuffer.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/nio//class-useByteBuffer.html)    [**NO FRAMES**](http://docs.google.com/ByteBuffer.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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