| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/BufferedOutputStream.html) | [**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 CLASS**](http://docs.google.com/java/io/BufferedInputStream.html)   [**NEXT CLASS**](http://docs.google.com/java/io/BufferedReader.html) | [**FRAMES**](http://docs.google.com/index.html?java/io/BufferedOutputStream.html)    [**NO FRAMES**](http://docs.google.com/BufferedOutputStream.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: [FIELD](#2s8eyo1) | [CONSTR](#26in1rg) | [METHOD](#1ksv4uv) |

## **java.io**

Class BufferedOutputStream

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.io.OutputStream](http://docs.google.com/java/io/OutputStream.html)  
 [java.io.FilterOutputStream](http://docs.google.com/java/io/FilterOutputStream.html)  
 **java.io.BufferedOutputStream**

**All Implemented Interfaces:** [Closeable](http://docs.google.com/java/io/Closeable.html), [Flushable](http://docs.google.com/java/io/Flushable.html)

public class **BufferedOutputStream**extends [FilterOutputStream](http://docs.google.com/java/io/FilterOutputStream.html)

The class implements a buffered output stream. By setting up such an output stream, an application can write bytes to the underlying output stream without necessarily causing a call to the underlying system for each byte written.

**Since:** JDK1.0

| **Field Summary** | |
| --- | --- |
| protected  byte[] | [**buf**](http://docs.google.com/java/io/BufferedOutputStream.html#buf)            The internal buffer where data is stored. |
| protected  int | [**count**](http://docs.google.com/java/io/BufferedOutputStream.html#count)            The number of valid bytes in the buffer. |

| **Fields inherited from class java.io.**[**FilterOutputStream**](http://docs.google.com/java/io/FilterOutputStream.html) |
| --- |
| [out](http://docs.google.com/java/io/FilterOutputStream.html#out) |

| **Constructor Summary** | |
| --- | --- |
| [**BufferedOutputStream**](http://docs.google.com/java/io/BufferedOutputStream.html#BufferedOutputStream(java.io.OutputStream))([OutputStream](http://docs.google.com/java/io/OutputStream.html) out)            Creates a new buffered output stream to write data to the specified underlying output stream. |
| [**BufferedOutputStream**](http://docs.google.com/java/io/BufferedOutputStream.html#BufferedOutputStream(java.io.OutputStream,%20int))([OutputStream](http://docs.google.com/java/io/OutputStream.html) out, int size)            Creates a new buffered output stream to write data to the specified underlying output stream with the specified buffer size. |

| **Method Summary** | |
| --- | --- |
| void | [**flush**](http://docs.google.com/java/io/BufferedOutputStream.html#flush())()            Flushes this buffered output stream. |
| void | [**write**](http://docs.google.com/java/io/BufferedOutputStream.html#write(byte%5B%5D,%20int,%20int))(byte[] b, int off, int len)            Writes len bytes from the specified byte array starting at offset off to this buffered output stream. |
| void | [**write**](http://docs.google.com/java/io/BufferedOutputStream.html#write(int))(int b)            Writes the specified byte to this buffered output stream. |

| **Methods inherited from class java.io.**[**FilterOutputStream**](http://docs.google.com/java/io/FilterOutputStream.html) |
| --- |
| [close](http://docs.google.com/java/io/FilterOutputStream.html#close()), [write](http://docs.google.com/java/io/FilterOutputStream.html#write(byte%5B%5D)) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Field Detail** |
| --- |

### buf

protected byte[] **buf**

The internal buffer where data is stored.

### count

protected int **count**

The number of valid bytes in the buffer. This value is always in the range 0 through buf.length; elements buf[0] through buf[count-1] contain valid byte data.

| **Constructor Detail** |
| --- |

### BufferedOutputStream

public **BufferedOutputStream**([OutputStream](http://docs.google.com/java/io/OutputStream.html) out)

Creates a new buffered output stream to write data to the specified underlying output stream.

**Parameters:**out - the underlying output stream.

### BufferedOutputStream

public **BufferedOutputStream**([OutputStream](http://docs.google.com/java/io/OutputStream.html) out,  
 int size)

Creates a new buffered output stream to write data to the specified underlying output stream with the specified buffer size.

**Parameters:**out - the underlying output stream.size - the buffer size. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if size <= 0.

| **Method Detail** |
| --- |

### write

public void **write**(int b)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Writes the specified byte to this buffered output stream.

**Overrides:**[write](http://docs.google.com/java/io/FilterOutputStream.html#write(int)) in class [FilterOutputStream](http://docs.google.com/java/io/FilterOutputStream.html) **Parameters:**b - the byte to be written. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if an I/O error occurs.

### write

public void **write**(byte[] b,  
 int off,  
 int len)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Writes len bytes from the specified byte array starting at offset off to this buffered output stream.

Ordinarily this method stores bytes from the given array into this stream's buffer, flushing the buffer to the underlying output stream as needed. If the requested length is at least as large as this stream's buffer, however, then this method will flush the buffer and write the bytes directly to the underlying output stream. Thus redundant BufferedOutputStreams will not copy data unnecessarily.

**Overrides:**[write](http://docs.google.com/java/io/FilterOutputStream.html#write(byte%5B%5D,%20int,%20int)) in class [FilterOutputStream](http://docs.google.com/java/io/FilterOutputStream.html) **Parameters:**b - the data.off - the start offset in the data.len - the number of bytes to write. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if an I/O error occurs.**See Also:**[FilterOutputStream.write(int)](http://docs.google.com/java/io/FilterOutputStream.html#write(int))

### flush

public void **flush**()  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Flushes this buffered output stream. This forces any buffered output bytes to be written out to the underlying output stream.

**Specified by:**[flush](http://docs.google.com/java/io/Flushable.html#flush()) in interface [Flushable](http://docs.google.com/java/io/Flushable.html)**Overrides:**[flush](http://docs.google.com/java/io/FilterOutputStream.html#flush()) in class [FilterOutputStream](http://docs.google.com/java/io/FilterOutputStream.html) **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if an I/O error occurs.**See Also:**[FilterOutputStream.out](http://docs.google.com/java/io/FilterOutputStream.html#out)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/BufferedOutputStream.html) | [**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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[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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