| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/FilterOutputStream.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/FilterInputStream.html)   [**NEXT CLASS**](http://docs.google.com/java/io/FilterReader.html) | [**FRAMES**](http://docs.google.com/index.html?java/io/FilterOutputStream.html)    [**NO FRAMES**](http://docs.google.com/FilterOutputStream.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#2s8eyo1) | [METHOD](#3rdcrjn) |

## **java.io**

Class FilterOutputStream

[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**

**All Implemented Interfaces:** [Closeable](http://docs.google.com/java/io/Closeable.html), [Flushable](http://docs.google.com/java/io/Flushable.html) **Direct Known Subclasses:** [BufferedOutputStream](http://docs.google.com/java/io/BufferedOutputStream.html), [CheckedOutputStream](http://docs.google.com/java/util/zip/CheckedOutputStream.html), [CipherOutputStream](http://docs.google.com/javax/crypto/CipherOutputStream.html), [DataOutputStream](http://docs.google.com/java/io/DataOutputStream.html), [DeflaterOutputStream](http://docs.google.com/java/util/zip/DeflaterOutputStream.html), [DigestOutputStream](http://docs.google.com/java/security/DigestOutputStream.html), [InflaterOutputStream](http://docs.google.com/java/util/zip/InflaterOutputStream.html), [PrintStream](http://docs.google.com/java/io/PrintStream.html)

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

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 itself simply overrides all methods of OutputStream with versions that pass all requests to the underlying output stream. Subclasses of FilterOutputStream may further override some of these methods as well as provide additional methods and fields.

**Since:** JDK1.0

| **Field Summary** | |
| --- | --- |
| protected  [OutputStream](http://docs.google.com/java/io/OutputStream.html) | [**out**](http://docs.google.com/java/io/FilterOutputStream.html#out)            The underlying output stream to be filtered. |

| **Constructor Summary** | |
| --- | --- |
| [**FilterOutputStream**](http://docs.google.com/java/io/FilterOutputStream.html#FilterOutputStream(java.io.OutputStream))([OutputStream](http://docs.google.com/java/io/OutputStream.html) out)            Creates an output stream filter built on top of the specified underlying output stream. |

| **Method Summary** | |
| --- | --- |
| void | [**close**](http://docs.google.com/java/io/FilterOutputStream.html#close())()            Closes this output stream and releases any system resources associated with the stream. |
| void | [**flush**](http://docs.google.com/java/io/FilterOutputStream.html#flush())()            Flushes this output stream and forces any buffered output bytes to be written out to the stream. |
| void | [**write**](http://docs.google.com/java/io/FilterOutputStream.html#write(byte%5B%5D))(byte[] b)            Writes b.length bytes to this output stream. |
| void | [**write**](http://docs.google.com/java/io/FilterOutputStream.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 output stream. |
| void | [**write**](http://docs.google.com/java/io/FilterOutputStream.html#write(int))(int b)            Writes the specified byte to this output stream. |

| **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** |
| --- |

### out

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

The underlying output stream to be filtered.

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

### FilterOutputStream

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

Creates an output stream filter built on top of the specified underlying output stream.

**Parameters:**out - the underlying output stream to be assigned to the field this.out for later use, or null if this instance is to be created without an underlying stream.

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

### write

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

Writes the specified byte to this output stream.

The write method of FilterOutputStream calls the write method of its underlying output stream, that is, it performs out.write(b).

Implements the abstract write method of OutputStream.

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

### write

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

Writes b.length bytes to this output stream.

The write method of FilterOutputStream calls its write method of three arguments with the arguments b, 0, and b.length.

Note that this method does not call the one-argument write method of its underlying stream with the single argument b.

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

### 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 output stream.

The write method of FilterOutputStream calls the write method of one argument on each byte to output.

Note that this method does not call the write method of its underlying input stream with the same arguments. Subclasses of FilterOutputStream should provide a more efficient implementation of this method.

**Overrides:**[write](http://docs.google.com/java/io/OutputStream.html#write(byte%5B%5D,%20int,%20int)) in class [OutputStream](http://docs.google.com/java/io/OutputStream.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:**[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 output stream and forces any buffered output bytes to be written out to the stream.

The flush method of FilterOutputStream calls the flush method of its 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/OutputStream.html#flush()) in class [OutputStream](http://docs.google.com/java/io/OutputStream.html) **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if an I/O error occurs.**See Also:**[out](http://docs.google.com/java/io/FilterOutputStream.html#out)

### close

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

Closes this output stream and releases any system resources associated with the stream.

The close method of FilterOutputStream calls its flush method, and then calls the close method of its underlying output stream.

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