| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ServerSocketChannel.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/nio/channels/Selector.html)   [**NEXT CLASS**](http://docs.google.com/java/nio/channels/SocketChannel.html) | [**FRAMES**](http://docs.google.com/index.html?java/nio/channels/ServerSocketChannel.html)    [**NO FRAMES**](http://docs.google.com/ServerSocketChannel.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#17dp8vu) | [METHOD](#26in1rg) |

## **java.nio.channels**

Class ServerSocketChannel

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.nio.channels.spi.AbstractInterruptibleChannel](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html)  
 [java.nio.channels.SelectableChannel](http://docs.google.com/java/nio/channels/SelectableChannel.html)  
 [java.nio.channels.spi.AbstractSelectableChannel](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html)  
 **java.nio.channels.ServerSocketChannel**

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

public abstract class **ServerSocketChannel**extends [AbstractSelectableChannel](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html)

A selectable channel for stream-oriented listening sockets.

Server-socket channels are not a complete abstraction of listening network sockets. Binding and the manipulation of socket options must be done through an associated [ServerSocket](http://docs.google.com/java/net/ServerSocket.html) object obtained by invoking the [socket](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#socket()) method. It is not possible to create a channel for an arbitrary, pre-existing server socket, nor is it possible to specify the [SocketImpl](http://docs.google.com/java/net/SocketImpl.html) object to be used by a server socket associated with a server-socket channel.

A server-socket channel is created by invoking the [open](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#open()) method of this class. A newly-created server-socket channel is open but not yet bound. An attempt to invoke the [accept](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#accept()) method of an unbound server-socket channel will cause a [NotYetBoundException](http://docs.google.com/java/nio/channels/NotYetBoundException.html) to be thrown. A server-socket channel can be bound by invoking one of the [bind](http://docs.google.com/java/net/ServerSocket.html#bind(java.net.SocketAddress,%20int)) methods of an associated server socket.

Server-socket channels are safe for use by multiple concurrent threads.

**Since:** 1.4

| **Constructor Summary** | |
| --- | --- |
| protected | [**ServerSocketChannel**](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#ServerSocketChannel(java.nio.channels.spi.SelectorProvider))([SelectorProvider](http://docs.google.com/java/nio/channels/spi/SelectorProvider.html) provider)            Initializes a new instance of this class. |

| **Method Summary** | |
| --- | --- |
| abstract  [SocketChannel](http://docs.google.com/java/nio/channels/SocketChannel.html) | [**accept**](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#accept())()            Accepts a connection made to this channel's socket. |
| static [ServerSocketChannel](http://docs.google.com/java/nio/channels/ServerSocketChannel.html) | [**open**](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#open())()            Opens a server-socket channel. |
| abstract  [ServerSocket](http://docs.google.com/java/net/ServerSocket.html) | [**socket**](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#socket())()            Retrieves a server socket associated with this channel. |
| int | [**validOps**](http://docs.google.com/java/nio/channels/ServerSocketChannel.html#validOps())()            Returns an operation set identifying this channel's supported operations. |

| **Methods inherited from class java.nio.channels.spi.**[**AbstractSelectableChannel**](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html) |
| --- |
| [blockingLock](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#blockingLock()), [configureBlocking](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#configureBlocking(boolean)), [implCloseChannel](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#implCloseChannel()), [implCloseSelectableChannel](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#implCloseSelectableChannel()), [implConfigureBlocking](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#implConfigureBlocking(boolean)), [isBlocking](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#isBlocking()), [isRegistered](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#isRegistered()), [keyFor](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#keyFor(java.nio.channels.Selector)), [provider](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#provider()), [register](http://docs.google.com/java/nio/channels/spi/AbstractSelectableChannel.html#register(java.nio.channels.Selector,%20int,%20java.lang.Object)) |

| **Methods inherited from class java.nio.channels.**[**SelectableChannel**](http://docs.google.com/java/nio/channels/SelectableChannel.html) |
| --- |
| [register](http://docs.google.com/java/nio/channels/SelectableChannel.html#register(java.nio.channels.Selector,%20int)) |

| **Methods inherited from class java.nio.channels.spi.**[**AbstractInterruptibleChannel**](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html) |
| --- |
| [begin](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html#begin()), [close](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html#close()), [end](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html#end(boolean)), [isOpen](http://docs.google.com/java/nio/channels/spi/AbstractInterruptibleChannel.html#isOpen()) |

| **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)) |

| **Methods inherited from interface java.nio.channels.**[**Channel**](http://docs.google.com/java/nio/channels/Channel.html) |
| --- |
| [close](http://docs.google.com/java/nio/channels/Channel.html#close()), [isOpen](http://docs.google.com/java/nio/channels/Channel.html#isOpen()) |

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

### ServerSocketChannel

protected **ServerSocketChannel**([SelectorProvider](http://docs.google.com/java/nio/channels/spi/SelectorProvider.html) provider)

Initializes a new instance of this class.

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

### open

public static [ServerSocketChannel](http://docs.google.com/java/nio/channels/ServerSocketChannel.html) **open**()  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Opens a server-socket channel.

The new channel is created by invoking the [openServerSocketChannel](http://docs.google.com/java/nio/channels/spi/SelectorProvider.html#openServerSocketChannel()) method of the system-wide default [SelectorProvider](http://docs.google.com/java/nio/channels/spi/SelectorProvider.html) object.

The new channel's socket is initially unbound; it must be bound to a specific address via one of its socket's [bind](http://docs.google.com/java/net/ServerSocket.html#bind(java.net.SocketAddress)) methods before connections can be accepted.

**Returns:**A new socket channel **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - If an I/O error occurs

### validOps

public final int **validOps**()

Returns an operation set identifying this channel's supported operations.

Server-socket channels only support the accepting of new connections, so this method returns [SelectionKey.OP\_ACCEPT](http://docs.google.com/java/nio/channels/SelectionKey.html#OP_ACCEPT).

**Specified by:**[validOps](http://docs.google.com/java/nio/channels/SelectableChannel.html#validOps()) in class [SelectableChannel](http://docs.google.com/java/nio/channels/SelectableChannel.html) **Returns:**The valid-operation set

### socket

public abstract [ServerSocket](http://docs.google.com/java/net/ServerSocket.html) **socket**()

Retrieves a server socket associated with this channel.

The returned object will not declare any public methods that are not declared in the [ServerSocket](http://docs.google.com/java/net/ServerSocket.html) class.

**Returns:**A server socket associated with this channel

### accept

public abstract [SocketChannel](http://docs.google.com/java/nio/channels/SocketChannel.html) **accept**()  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Accepts a connection made to this channel's socket.

If this channel is in non-blocking mode then this method will immediately return null if there are no pending connections. Otherwise it will block indefinitely until a new connection is available or an I/O error occurs.

The socket channel returned by this method, if any, will be in blocking mode regardless of the blocking mode of this channel.

This method performs exactly the same security checks as the [accept](http://docs.google.com/java/net/ServerSocket.html#accept()) method of the [ServerSocket](http://docs.google.com/java/net/ServerSocket.html) class. That is, if a security manager has been installed then for each new connection this method verifies that the address and port number of the connection's remote endpoint are permitted by the security manager's [checkAccept](http://docs.google.com/java/lang/SecurityManager.html#checkAccept(java.lang.String,%20int)) method.

**Returns:**The socket channel for the new connection, or null if this channel is in non-blocking mode and no connection is available to be accepted **Throws:** [ClosedChannelException](http://docs.google.com/java/nio/channels/ClosedChannelException.html) - If this channel is closed [AsynchronousCloseException](http://docs.google.com/java/nio/channels/AsynchronousCloseException.html) - If another thread closes this channel while the accept operation is in progress [ClosedByInterruptException](http://docs.google.com/java/nio/channels/ClosedByInterruptException.html) - If another thread interrupts the current thread while the accept operation is in progress, thereby closing the channel and setting the current thread's interrupt status [NotYetBoundException](http://docs.google.com/java/nio/channels/NotYetBoundException.html) - If this channel's socket has not yet been bound [SecurityException](http://docs.google.com/java/lang/SecurityException.html) - If a security manager has been installed and it does not permit access to the remote endpoint of the new connection [IOException](http://docs.google.com/java/io/IOException.html) - If some other I/O error occurs

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ServerSocketChannel.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/nio/channels/Selector.html)   [**NEXT CLASS**](http://docs.google.com/java/nio/channels/SocketChannel.html) | [**FRAMES**](http://docs.google.com/index.html?java/nio/channels/ServerSocketChannel.html)    [**NO FRAMES**](http://docs.google.com/ServerSocketChannel.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#17dp8vu) | [METHOD](#26in1rg) |

[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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