| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/RemoteObject.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/rmi/server/RemoteCall.html)   [**NEXT CLASS**](http://docs.google.com/java/rmi/server/RemoteObjectInvocationHandler.html) | [**FRAMES**](http://docs.google.com/index.html?java/rmi/server/RemoteObject.html)    [**NO FRAMES**](http://docs.google.com/RemoteObject.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#2s8eyo1) | [METHOD](#26in1rg) |

## **java.rmi.server**

Class RemoteObject

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.rmi.server.RemoteObject**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Remote](http://docs.google.com/java/rmi/Remote.html) **Direct Known Subclasses:** [RemoteObjectInvocationHandler](http://docs.google.com/java/rmi/server/RemoteObjectInvocationHandler.html), [RemoteServer](http://docs.google.com/java/rmi/server/RemoteServer.html), [RemoteStub](http://docs.google.com/java/rmi/server/RemoteStub.html)

public abstract class **RemoteObject**extends [Object](http://docs.google.com/java/lang/Object.html)implements [Remote](http://docs.google.com/java/rmi/Remote.html), [Serializable](http://docs.google.com/java/io/Serializable.html)

The RemoteObject class implements the java.lang.Object behavior for remote objects. RemoteObject provides the remote semantics of Object by implementing methods for hashCode, equals, and toString.

**Since:** JDK1.1 **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#java.rmi.server.RemoteObject)

| **Field Summary** | |
| --- | --- |
| protected  [RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) | [**ref**](http://docs.google.com/java/rmi/server/RemoteObject.html#ref)            The object's remote reference. |

| **Constructor Summary** | |
| --- | --- |
| protected | [**RemoteObject**](http://docs.google.com/java/rmi/server/RemoteObject.html#RemoteObject())()            Creates a remote object. |
| protected | [**RemoteObject**](http://docs.google.com/java/rmi/server/RemoteObject.html#RemoteObject(java.rmi.server.RemoteRef))([RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) newref)            Creates a remote object, initialized with the specified remote reference. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/java/rmi/server/RemoteObject.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Compares two remote objects for equality. |
| [RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) | [**getRef**](http://docs.google.com/java/rmi/server/RemoteObject.html#getRef())()            Returns the remote reference for the remote object. |
| int | [**hashCode**](http://docs.google.com/java/rmi/server/RemoteObject.html#hashCode())()            Returns a hashcode for a remote object. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/rmi/server/RemoteObject.html#toString())()            Returns a String that represents the value of this remote object. |
| static [Remote](http://docs.google.com/java/rmi/Remote.html) | [**toStub**](http://docs.google.com/java/rmi/server/RemoteObject.html#toStub(java.rmi.Remote))([Remote](http://docs.google.com/java/rmi/Remote.html) obj)            Returns the stub for the remote object obj passed as a parameter. |

| **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()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [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** |
| --- |

### ref

protected transient [RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) **ref**

The object's remote reference.

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

### RemoteObject

protected **RemoteObject**()

Creates a remote object.

### RemoteObject

protected **RemoteObject**([RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) newref)

Creates a remote object, initialized with the specified remote reference.

**Parameters:**newref - remote reference

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

### getRef

public [RemoteRef](http://docs.google.com/java/rmi/server/RemoteRef.html) **getRef**()

Returns the remote reference for the remote object.

Note: The object returned from this method may be an instance of an implementation-specific class. The RemoteObject class ensures serialization portability of its instances' remote references through the behavior of its custom writeObject and readObject methods. An instance of RemoteRef should not be serialized outside of its RemoteObject wrapper instance or the result may be unportable.

**Returns:**remote reference for the remote object**Since:** 1.2

### toStub

public static [Remote](http://docs.google.com/java/rmi/Remote.html) **toStub**([Remote](http://docs.google.com/java/rmi/Remote.html) obj)  
 throws [NoSuchObjectException](http://docs.google.com/java/rmi/NoSuchObjectException.html)

Returns the stub for the remote object obj passed as a parameter. This operation is only valid *after* the object has been exported.

**Parameters:**obj - the remote object whose stub is needed **Returns:**the stub for the remote object, obj. **Throws:** [NoSuchObjectException](http://docs.google.com/java/rmi/NoSuchObjectException.html) - if the stub for the remote object could not be found.**Since:** 1.2

### hashCode

public int **hashCode**()

Returns a hashcode for a remote object. Two remote object stubs that refer to the same remote object will have the same hash code (in order to support remote objects as keys in hash tables).

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code value for this object.**See Also:**[Hashtable](http://docs.google.com/java/util/Hashtable.html)

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Compares two remote objects for equality. Returns a boolean that indicates whether this remote object is equivalent to the specified Object. This method is used when a remote object is stored in a hashtable. If the specified Object is not itself an instance of RemoteObject, then this method delegates by returning the result of invoking the equals method of its parameter with this remote object as the argument.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the Object to compare with **Returns:**true if these Objects are equal; false otherwise.**See Also:**[Hashtable](http://docs.google.com/java/util/Hashtable.html)

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

Returns a String that represents the value of this remote object.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a string representation of the object.

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