| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Request.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/org/omg/CORBA/RepositoryIdHelper.html)   [**NEXT CLASS**](http://docs.google.com/org/omg/CORBA/ServerRequest.html) | [**FRAMES**](http://docs.google.com/index.html?org/omg/CORBA/Request.html)    [**NO FRAMES**](http://docs.google.com/Request.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **org.omg.CORBA**

Class Request

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **org.omg.CORBA.Request**

public abstract class **Request**extends [Object](http://docs.google.com/java/lang/Object.html)

An object containing the information necessary for invoking a method. This class is the cornerstone of the ORB Dynamic Invocation Interface (DII), which allows dynamic creation and invocation of requests. A server cannot tell the difference between a client invocation using a client stub and a request using the DII.

A Request object consists of:

* the name of the operation to be invoked
* an NVList containing arguments for the operation.  
  Each item in the list is a NamedValue object, which has three parts:
  1. the name of the argument
  2. the value of the argument (as an Any object)
  3. the argument mode flag indicating whether the argument is for input, output, or both

Request objects may also contain additional information, depending on how an operation was defined in the original IDL interface definition. For example, where appropriate, they may contain a NamedValue object to hold the return value or exception, a context, a list of possible exceptions, and a list of context strings that need to be resolved.

New Request objects are created using one of the create\_request methods in the Object class. In other words, a create\_request method is performed on the object which is to be invoked.

**See Also:**[NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html)

| **Constructor Summary** | |
| --- | --- |
| [**Request**](http://docs.google.com/org/omg/CORBA/Request.html#Request())() |

| **Method Summary** | |
| --- | --- |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_in\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_in_arg())()            Creates an input argument and adds it to this Request object. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_inout\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_inout_arg())()            Adds an input/output argument to this Request object. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_named\_in\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_named_in_arg(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)            Creates an input argument with the given name and adds it to this Request object. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_named\_inout\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_named_inout_arg(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)            Adds an input/output argument with the given name to this Request object. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_named\_out\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_named_out_arg(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)            Adds an output argument with the given name to this Request object. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**add\_out\_arg**](http://docs.google.com/org/omg/CORBA/Request.html#add_out_arg())()            Adds an output argument to this Request object. |
| abstract  [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) | [**arguments**](http://docs.google.com/org/omg/CORBA/Request.html#arguments())()            Retrieves the NVList object containing the arguments to the method being invoked. |
| abstract  [ContextList](http://docs.google.com/org/omg/CORBA/ContextList.html) | [**contexts**](http://docs.google.com/org/omg/CORBA/Request.html#contexts())()            Retrieves the ContextList object for this request. |
| abstract  [Context](http://docs.google.com/org/omg/CORBA/Context.html) | [**ctx**](http://docs.google.com/org/omg/CORBA/Request.html#ctx())()            Retrieves the Context object for this request. |
| abstract  void | [**ctx**](http://docs.google.com/org/omg/CORBA/Request.html#ctx(org.omg.CORBA.Context))([Context](http://docs.google.com/org/omg/CORBA/Context.html) c)            Sets this request's Context object to the one given. |
| abstract  [Environment](http://docs.google.com/org/omg/CORBA/Environment.html) | [**env**](http://docs.google.com/org/omg/CORBA/Request.html#env())()            Retrieves the Environment object for this request. |
| abstract  [ExceptionList](http://docs.google.com/org/omg/CORBA/ExceptionList.html) | [**exceptions**](http://docs.google.com/org/omg/CORBA/Request.html#exceptions())()            Retrieves the ExceptionList object for this request. |
| abstract  void | [**get\_response**](http://docs.google.com/org/omg/CORBA/Request.html#get_response())()            Allows the user to access the response for the invocation triggered earlier with the send\_deferred method. |
| abstract  void | [**invoke**](http://docs.google.com/org/omg/CORBA/Request.html#invoke())()            Makes a synchronous invocation using the information in the Request object. |
| abstract  [String](http://docs.google.com/java/lang/String.html) | [**operation**](http://docs.google.com/org/omg/CORBA/Request.html#operation())()            Retrieves the name of the method to be invoked. |
| abstract  boolean | [**poll\_response**](http://docs.google.com/org/omg/CORBA/Request.html#poll_response())()            Allows the user to determine whether a response has been received for the invocation triggered earlier with the send\_deferred method. |
| abstract  [NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html) | [**result**](http://docs.google.com/org/omg/CORBA/Request.html#result())()            Retrieves the NamedValue object containing the return value for the method. |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**return\_value**](http://docs.google.com/org/omg/CORBA/Request.html#return_value())()            Returns the Any object that contains the value for the result of the method. |
| abstract  void | [**send\_deferred**](http://docs.google.com/org/omg/CORBA/Request.html#send_deferred())()            Makes an asynchronous invocation on the request. |
| abstract  void | [**send\_oneway**](http://docs.google.com/org/omg/CORBA/Request.html#send_oneway())()            Makes a oneway invocation on the request. |
| abstract  void | [**set\_return\_type**](http://docs.google.com/org/omg/CORBA/Request.html#set_return_type(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) tc)            Sets the typecode for the return value of the method. |
| abstract  [Object](http://docs.google.com/org/omg/CORBA/Object.html) | [**target**](http://docs.google.com/org/omg/CORBA/Request.html#target())()            Retrieves the the target object reference. |

| **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)) |

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

### Request

public **Request**()

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

### target

public abstract [Object](http://docs.google.com/org/omg/CORBA/Object.html) **target**()

Retrieves the the target object reference.

**Returns:**the object reference that points to the object implementation for the method to be invoked

### operation

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

Retrieves the name of the method to be invoked.

**Returns:**the name of the method to be invoked

### arguments

public abstract [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) **arguments**()

Retrieves the NVList object containing the arguments to the method being invoked. The elements in the list are NamedValue objects, with each one describing an argument to the method.

**Returns:**the NVList object containing the arguments for the method

### result

public abstract [NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html) **result**()

Retrieves the NamedValue object containing the return value for the method.

**Returns:**the NamedValue object containing the result of the method

### env

public abstract [Environment](http://docs.google.com/org/omg/CORBA/Environment.html) **env**()

Retrieves the Environment object for this request. It contains the exception that the method being invoked has thrown (after the invocation returns).

**Returns:**the Environment object for this request

### exceptions

public abstract [ExceptionList](http://docs.google.com/org/omg/CORBA/ExceptionList.html) **exceptions**()

Retrieves the ExceptionList object for this request. This list contains TypeCode objects describing the exceptions that may be thrown by the method being invoked.

**Returns:**the ExceptionList object describing the exceptions that may be thrown by the method being invoked

### contexts

public abstract [ContextList](http://docs.google.com/org/omg/CORBA/ContextList.html) **contexts**()

Retrieves the ContextList object for this request. This list contains context Strings that need to be resolved and sent with the invocation.

**Returns:**the list of context strings whose values need to be resolved and sent with the invocation.

### ctx

public abstract [Context](http://docs.google.com/org/omg/CORBA/Context.html) **ctx**()

Retrieves the Context object for this request. This is a list of properties giving information about the client, the environment, or the circumstances of this request.

**Returns:**the Context object that is to be used to resolve any context strings whose values need to be sent with the invocation

### ctx

public abstract void **ctx**([Context](http://docs.google.com/org/omg/CORBA/Context.html) c)

Sets this request's Context object to the one given.

**Parameters:**c - the new Context object to be used for resolving context strings

### add\_in\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_in\_arg**()

Creates an input argument and adds it to this Request object.

**Returns:**an Any object that contains the value and typecode for the input argument added

### add\_named\_in\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_named\_in\_arg**([String](http://docs.google.com/java/lang/String.html) name)

Creates an input argument with the given name and adds it to this Request object.

**Parameters:**name - the name of the argument being added **Returns:**an Any object that contains the value and typecode for the input argument added

### add\_inout\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_inout\_arg**()

Adds an input/output argument to this Request object.

**Returns:**an Any object that contains the value and typecode for the input/output argument added

### add\_named\_inout\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_named\_inout\_arg**([String](http://docs.google.com/java/lang/String.html) name)

Adds an input/output argument with the given name to this Request object.

**Parameters:**name - the name of the argument being added **Returns:**an Any object that contains the value and typecode for the input/output argument added

### add\_out\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_out\_arg**()

Adds an output argument to this Request object.

**Returns:**an Any object that contains the value and typecode for the output argument added

### add\_named\_out\_arg

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **add\_named\_out\_arg**([String](http://docs.google.com/java/lang/String.html) name)

Adds an output argument with the given name to this Request object.

**Parameters:**name - the name of the argument being added **Returns:**an Any object that contains the value and typecode for the output argument added

### set\_return\_type

public abstract void **set\_return\_type**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) tc)

Sets the typecode for the return value of the method.

**Parameters:**tc - the TypeCode object containing type information for the return value

### return\_value

public abstract [Any](http://docs.google.com/org/omg/CORBA/Any.html) **return\_value**()

Returns the Any object that contains the value for the result of the method.

**Returns:**an Any object containing the value and typecode for the return value

### invoke

public abstract void **invoke**()

Makes a synchronous invocation using the information in the Request object. Exception information is placed into the Request object's environment object.

### send\_oneway

public abstract void **send\_oneway**()

Makes a oneway invocation on the request. In other words, it does not expect or wait for a response. Note that this can be used even if the operation was not declared as oneway in the IDL declaration. No response or exception information is returned.

### send\_deferred

public abstract void **send\_deferred**()

Makes an asynchronous invocation on the request. In other words, it does not wait for a response before it returns to the user. The user can then later use the methods poll\_response and get\_response to get the result or exception information for the invocation.

### poll\_response

public abstract boolean **poll\_response**()

Allows the user to determine whether a response has been received for the invocation triggered earlier with the send\_deferred method.

**Returns:**true if the method response has been received; false otherwise

### get\_response

public abstract void **get\_response**()  
 throws [WrongTransaction](http://docs.google.com/org/omg/CORBA/WrongTransaction.html)

Allows the user to access the response for the invocation triggered earlier with the send\_deferred method.

**Throws:** [WrongTransaction](http://docs.google.com/org/omg/CORBA/WrongTransaction.html) - if the method get\_response was invoked from a different transaction's scope than the one from which the request was originally sent. See the OMG Transaction Service specification for details.

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