| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ORB.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/OMGVMCID.html)   [**NEXT CLASS**](http://docs.google.com/org/omg/CORBA/ParameterMode.html) | [**FRAMES**](http://docs.google.com/index.html?org/omg/CORBA/ORB.html)    [**NO FRAMES**](http://docs.google.com/ORB.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 ORB

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

**Direct Known Subclasses:** [ORB](http://docs.google.com/org/omg/CORBA_2_3/ORB.html)

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

A class providing APIs for the CORBA Object Request Broker features. The ORB class also provides "pluggable ORB implementation" APIs that allow another vendor's ORB implementation to be used.

An ORB makes it possible for CORBA objects to communicate with each other by connecting objects making requests (clients) with objects servicing requests (servers).

The ORB class, which encapsulates generic CORBA functionality, does the following: (Note that items 5 and 6, which include most of the methods in the class ORB, are typically used with the Dynamic Invocation Interface (DII) and the Dynamic Skeleton Interface (DSI). These interfaces may be used by a developer directly, but most commonly they are used by the ORB internally and are not seen by the general programmer.)

1. initializes the ORB implementation by supplying values for predefined properties and environmental parameters
2. obtains initial object references to services such as the NameService using the method resolve\_initial\_references
3. converts object references to strings and back
4. connects the ORB to a servant (an instance of a CORBA object implementation) and disconnects the ORB from a servant
5. creates objects such as
   * TypeCode
   * Any
   * NamedValue
   * Context
   * Environment
   * lists (such as NVList) containing these objects
6. sends multiple messages in the DII

The ORB class can be used to obtain references to objects implemented anywhere on the network.

An application or applet gains access to the CORBA environment by initializing itself into an ORB using one of three init methods. Two of the three methods use the properties (associations of a name with a value) shown in the table below.

Standard Java CORBA Properties:

| Property Name | Property Value |
| --- | --- |
| org.omg.CORBA.ORBClass | class name of an ORB implementation |
| org.omg.CORBA.ORBSingletonClass | class name of the ORB returned by init() |

These properties allow a different vendor's ORB implementation to be "plugged in."

When an ORB instance is being created, the class name of the ORB implementation is located using the following standard search order:

1. check in Applet parameter or application string array, if any
2. check in properties parameter, if any
3. check in the System properties
4. check in the orb.properties file located in the user.home directory (if any)
5. check in the orb.properties file located in the java.home/lib directory (if any)
6. fall back on a hardcoded default behavior (use the Java IDL implementation)

Note that Java IDL provides a default implementation for the fully-functional ORB and for the Singleton ORB. When the method init is given no parameters, the default Singleton ORB is returned. When the method init is given parameters but no ORB class is specified, the Java IDL ORB implementation is returned.

The following code fragment creates an ORB object initialized with the default ORB Singleton. This ORB has a restricted implementation to prevent malicious applets from doing anything beyond creating typecodes. It is called a singleton because there is only one instance for an entire virtual machine.

ORB orb = ORB.init();

The following code fragment creates an ORB object for an application. The parameter args represents the arguments supplied to the application's main method. Since the property specifies the ORB class to be "SomeORBImplementation", the new ORB will be initialized with that ORB implementation. If p had been null, and the arguments had not specified an ORB class, the new ORB would have been initialized with the default Java IDL implementation.

Properties p = new Properties();  
 p.put("org.omg.CORBA.ORBClass", "SomeORBImplementation");  
 ORB orb = ORB.init(args, p);

The following code fragment creates an ORB object for the applet supplied as the first parameter. If the given applet does not specify an ORB class, the new ORB will be initialized with the default Java IDL implementation.

ORB orb = ORB.init(myApplet, null);

An application or applet can be initialized in one or more ORBs. ORB initialization is a bootstrap call into the CORBA world.

**Since:** JDK1.2

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

| **Method Summary** | |
| --- | --- |
| void | [**connect**](http://docs.google.com/org/omg/CORBA/ORB.html#connect(org.omg.CORBA.Object))([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)            Connects the given servant object (a Java object that is an instance of the server implementation class) to the ORB. |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_abstract\_interface\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_abstract_interface_tc(java.lang.String,%20java.lang.String))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name)            Create a TypeCode object for an IDL abstract interface. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_alias\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_alias_tc(java.lang.String,%20java.lang.String,%20org.omg.CORBA.TypeCode))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) original\_type)            Creates a TypeCode object representing an IDL alias (typedef). |
| abstract  [Any](http://docs.google.com/org/omg/CORBA/Any.html) | [**create\_any**](http://docs.google.com/org/omg/CORBA/ORB.html#create_any())()            Creates an IDL Any object initialized to contain a Typecode object whose kind field is set to TCKind.tc\_null. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_array\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_array_tc(int,%20org.omg.CORBA.TypeCode))(int length, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) element\_type)            Creates a TypeCode object representing an IDL array. |
| [DynAny](http://docs.google.com/org/omg/CORBA/DynAny.html) | [**create\_basic\_dyn\_any**](http://docs.google.com/org/omg/CORBA/ORB.html#create_basic_dyn_any(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| abstract  [ContextList](http://docs.google.com/org/omg/CORBA/ContextList.html) | [**create\_context\_list**](http://docs.google.com/org/omg/CORBA/ORB.html#create_context_list())()            Creates an empty ContextList object. |
| [DynAny](http://docs.google.com/org/omg/CORBA/DynAny.html) | [**create\_dyn\_any**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_any(org.omg.CORBA.Any))([Any](http://docs.google.com/org/omg/CORBA/Any.html) value)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| [DynArray](http://docs.google.com/org/omg/CORBA/DynArray.html) | [**create\_dyn\_array**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_array(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| [DynEnum](http://docs.google.com/org/omg/CORBA/DynEnum.html) | [**create\_dyn\_enum**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_enum(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| [DynSequence](http://docs.google.com/org/omg/CORBA/DynSequence.html) | [**create\_dyn\_sequence**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_sequence(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| [DynStruct](http://docs.google.com/org/omg/CORBA/DynStruct.html) | [**create\_dyn\_struct**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_struct(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| [DynUnion](http://docs.google.com/org/omg/CORBA/DynUnion.html) | [**create\_dyn\_union**](http://docs.google.com/org/omg/CORBA/ORB.html#create_dyn_union(org.omg.CORBA.TypeCode))([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  **Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead* |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_enum\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_enum_tc(java.lang.String,%20java.lang.String,%20java.lang.String%5B%5D))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [String](http://docs.google.com/java/lang/String.html)[] members)            Creates a TypeCode object representing an IDL enum. |
| abstract  [Environment](http://docs.google.com/org/omg/CORBA/Environment.html) | [**create\_environment**](http://docs.google.com/org/omg/CORBA/ORB.html#create_environment())()            Creates an Environment object. |
| abstract  [ExceptionList](http://docs.google.com/org/omg/CORBA/ExceptionList.html) | [**create\_exception\_list**](http://docs.google.com/org/omg/CORBA/ORB.html#create_exception_list())()            Creates an empty ExceptionList object. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_exception\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_exception_tc(java.lang.String,%20java.lang.String,%20org.omg.CORBA.StructMember%5B%5D))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [StructMember](http://docs.google.com/org/omg/CORBA/StructMember.html)[] members)            Creates a TypeCode object representing an IDL exception. |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_fixed\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_fixed_tc(short,%20short))(short digits, short scale)            Create a TypeCode object for an IDL fixed type. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_interface\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_interface_tc(java.lang.String,%20java.lang.String))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name)            Creates a TypeCode object representing an IDL interface. |
| abstract  [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) | [**create\_list**](http://docs.google.com/org/omg/CORBA/ORB.html#create_list(int))(int count)            Allocates an NVList with (probably) enough space for the specified number of NamedValue objects. |
| abstract  [NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html) | [**create\_named\_value**](http://docs.google.com/org/omg/CORBA/ORB.html#create_named_value(java.lang.String,%20org.omg.CORBA.Any,%20int))([String](http://docs.google.com/java/lang/String.html) s, [Any](http://docs.google.com/org/omg/CORBA/Any.html) any, int flags)            Creates a NamedValue object using the given name, value, and argument mode flags. |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_native\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_native_tc(java.lang.String,%20java.lang.String))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name)            Create a TypeCode object for an IDL native type. |
| [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) | [**create\_operation\_list**](http://docs.google.com/org/omg/CORBA/ORB.html#create_operation_list(org.omg.CORBA.Object))([Object](http://docs.google.com/org/omg/CORBA/Object.html) oper)            Creates an NVList initialized with argument descriptions for the operation described in the given OperationDef object. |
| abstract  [OutputStream](http://docs.google.com/org/omg/CORBA/portable/OutputStream.html) | [**create\_output\_stream**](http://docs.google.com/org/omg/CORBA/ORB.html#create_output_stream())()            Creates a new org.omg.CORBA.portable.OutputStream into which IDL method parameters can be marshalled during method invocation. |
| [Policy](http://docs.google.com/org/omg/CORBA/Policy.html) | [**create\_policy**](http://docs.google.com/org/omg/CORBA/ORB.html#create_policy(int,%20org.omg.CORBA.Any))(int type, [Any](http://docs.google.com/org/omg/CORBA/Any.html) val)            Can be invoked to create new instances of policy objects of a specific type with specified initial state. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_recursive\_sequence\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_recursive_sequence_tc(int,%20int))(int bound, int offset)  **Deprecated.** *Use a combination of create\_recursive\_tc and create\_sequence\_tc instead* |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_recursive\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_recursive_tc(java.lang.String))([String](http://docs.google.com/java/lang/String.html) id)            Create a recursive TypeCode object which serves as a placeholder for a concrete TypeCode during the process of creating TypeCodes which contain recursion. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_sequence\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_sequence_tc(int,%20org.omg.CORBA.TypeCode))(int bound, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) element\_type)            Creates a TypeCode object representing an IDL sequence. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_string\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_string_tc(int))(int bound)            Creates a TypeCode object representing a bounded IDL string. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_struct\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_struct_tc(java.lang.String,%20java.lang.String,%20org.omg.CORBA.StructMember%5B%5D))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [StructMember](http://docs.google.com/org/omg/CORBA/StructMember.html)[] members)            Creates a TypeCode object representing an IDL struct. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_union\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_union_tc(java.lang.String,%20java.lang.String,%20org.omg.CORBA.TypeCode,%20org.omg.CORBA.UnionMember%5B%5D))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) discriminator\_type, [UnionMember](http://docs.google.com/org/omg/CORBA/UnionMember.html)[] members)            Creates a TypeCode object representing an IDL union. |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_value\_box\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_value_box_tc(java.lang.String,%20java.lang.String,%20org.omg.CORBA.TypeCode))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) boxed\_type)            Creates a TypeCode object for an IDL value box. |
| [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_value\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_value_tc(java.lang.String,%20java.lang.String,%20short,%20org.omg.CORBA.TypeCode,%20org.omg.CORBA.ValueMember%5B%5D))([String](http://docs.google.com/java/lang/String.html) id, [String](http://docs.google.com/java/lang/String.html) name, short type\_modifier, [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) concrete\_base, [ValueMember](http://docs.google.com/org/omg/CORBA/ValueMember.html)[] members)            Create a TypeCode object for an IDL value type. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**create\_wstring\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#create_wstring_tc(int))(int bound)            Creates a TypeCode object representing a bounded IDL wstring (wide string). |
| void | [**destroy**](http://docs.google.com/org/omg/CORBA/ORB.html#destroy())()            Destroys the ORB so that its resources can be reclaimed. |
| void | [**disconnect**](http://docs.google.com/org/omg/CORBA/ORB.html#disconnect(org.omg.CORBA.Object))([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)            Disconnects the given servant object from the ORB. |
| [Current](http://docs.google.com/org/omg/CORBA/Current.html) | [**get\_current**](http://docs.google.com/org/omg/CORBA/ORB.html#get_current())()  **Deprecated.** *use resolve\_initial\_references.* |
| abstract  [Context](http://docs.google.com/org/omg/CORBA/Context.html) | [**get\_default\_context**](http://docs.google.com/org/omg/CORBA/ORB.html#get_default_context())()            Gets the default Context object. |
| abstract  [Request](http://docs.google.com/org/omg/CORBA/Request.html) | [**get\_next\_response**](http://docs.google.com/org/omg/CORBA/ORB.html#get_next_response())()            Gets the next Request instance for which a response has been received. |
| abstract  [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) | [**get\_primitive\_tc**](http://docs.google.com/org/omg/CORBA/ORB.html#get_primitive_tc(org.omg.CORBA.TCKind))([TCKind](http://docs.google.com/org/omg/CORBA/TCKind.html) tcKind)            Retrieves the TypeCode object that represents the given primitive IDL type. |
| boolean | [**get\_service\_information**](http://docs.google.com/org/omg/CORBA/ORB.html#get_service_information(short,%20org.omg.CORBA.ServiceInformationHolder))(short service\_type, [ServiceInformationHolder](http://docs.google.com/org/omg/CORBA/ServiceInformationHolder.html) service\_info)            Used to obtain information about CORBA facilities and services that are supported by this ORB. |
| static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) | [**init**](http://docs.google.com/org/omg/CORBA/ORB.html#init())()            Returns the ORB singleton object. |
| static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) | [**init**](http://docs.google.com/org/omg/CORBA/ORB.html#init(java.applet.Applet,%20java.util.Properties))([Applet](http://docs.google.com/java/applet/Applet.html) app, [Properties](http://docs.google.com/java/util/Properties.html) props)            Creates a new ORB instance for an applet. |
| static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) | [**init**](http://docs.google.com/org/omg/CORBA/ORB.html#init(java.lang.String%5B%5D,%20java.util.Properties))([String](http://docs.google.com/java/lang/String.html)[] args, [Properties](http://docs.google.com/java/util/Properties.html) props)            Creates a new ORB instance for a standalone application. |
| abstract  [String](http://docs.google.com/java/lang/String.html)[] | [**list\_initial\_services**](http://docs.google.com/org/omg/CORBA/ORB.html#list_initial_services())()            Returns a list of the initially available CORBA object references, such as "NameService" and "InterfaceRepository". |
| abstract  [String](http://docs.google.com/java/lang/String.html) | [**object\_to\_string**](http://docs.google.com/org/omg/CORBA/ORB.html#object_to_string(org.omg.CORBA.Object))([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)            Converts the given CORBA object reference to a string. |
| void | [**perform\_work**](http://docs.google.com/org/omg/CORBA/ORB.html#perform_work())()            Performs an implementation-dependent unit of work if called by the main thread. |
| abstract  boolean | [**poll\_next\_response**](http://docs.google.com/org/omg/CORBA/ORB.html#poll_next_response())()            Finds out if any of the deferred (asynchronous) invocations have a response yet. |
| abstract  [Object](http://docs.google.com/org/omg/CORBA/Object.html) | [**resolve\_initial\_references**](http://docs.google.com/org/omg/CORBA/ORB.html#resolve_initial_references(java.lang.String))([String](http://docs.google.com/java/lang/String.html) object\_name)            Resolves a specific object reference from the set of available initial service names. |
| void | [**run**](http://docs.google.com/org/omg/CORBA/ORB.html#run())()            This operation blocks the current thread until the ORB has completed the shutdown process, initiated when some thread calls shutdown. |
| abstract  void | [**send\_multiple\_requests\_deferred**](http://docs.google.com/org/omg/CORBA/ORB.html#send_multiple_requests_deferred(org.omg.CORBA.Request%5B%5D))([Request](http://docs.google.com/org/omg/CORBA/Request.html)[] req)            Sends multiple dynamic (DII) requests asynchronously. |
| abstract  void | [**send\_multiple\_requests\_oneway**](http://docs.google.com/org/omg/CORBA/ORB.html#send_multiple_requests_oneway(org.omg.CORBA.Request%5B%5D))([Request](http://docs.google.com/org/omg/CORBA/Request.html)[] req)            Sends multiple dynamic (DII) requests asynchronously without expecting any responses. |
| protected abstract  void | [**set\_parameters**](http://docs.google.com/org/omg/CORBA/ORB.html#set_parameters(java.applet.Applet,%20java.util.Properties))([Applet](http://docs.google.com/java/applet/Applet.html) app, [Properties](http://docs.google.com/java/util/Properties.html) props)            Allows the ORB implementation to be initialized with the given applet and parameters. |
| protected abstract  void | [**set\_parameters**](http://docs.google.com/org/omg/CORBA/ORB.html#set_parameters(java.lang.String%5B%5D,%20java.util.Properties))([String](http://docs.google.com/java/lang/String.html)[] args, [Properties](http://docs.google.com/java/util/Properties.html) props)            Allows the ORB implementation to be initialized with the given parameters and properties. |
| void | [**shutdown**](http://docs.google.com/org/omg/CORBA/ORB.html#shutdown(boolean))(boolean wait\_for\_completion)            Instructs the ORB to shut down, which causes all object adapters to shut down, in preparation for destruction.  If the wait\_for\_completion parameter is true, this operation blocks until all ORB processing (including processing of currently executing requests, object deactivation, and other object adapter operations) has completed. |
| abstract  [Object](http://docs.google.com/org/omg/CORBA/Object.html) | [**string\_to\_object**](http://docs.google.com/org/omg/CORBA/ORB.html#string_to_object(java.lang.String))([String](http://docs.google.com/java/lang/String.html) str)            Converts a string produced by the method object\_to\_string back to a CORBA object reference. |
| boolean | [**work\_pending**](http://docs.google.com/org/omg/CORBA/ORB.html#work_pending())()            Returns true if the ORB needs the main thread to perform some work, and false if the ORB does not need the main thread. |

| **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** |
| --- |

### ORB

public **ORB**()

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

### init

public static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) **init**()

Returns the ORB singleton object. This method always returns the same ORB instance, which is an instance of the class described by the org.omg.CORBA.ORBSingletonClass system property.

This no-argument version of the method init is used primarily as a factory for TypeCode objects, which are used by Helper classes to implement the method type. It is also used to create Any objects that are used to describe union labels (as part of creating a TypeCode object for a union).

This method is not intended to be used by applets, and in the event that it is called in an applet environment, the ORB it returns is restricted so that it can be used only as a factory for TypeCode objects. Any TypeCode objects it produces can be safely shared among untrusted applets.

If an ORB is created using this method from an applet, a system exception will be thrown if methods other than those for creating TypeCode objects are invoked.

**Returns:**the singleton ORB

### init

public static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) **init**([String](http://docs.google.com/java/lang/String.html)[] args,  
 [Properties](http://docs.google.com/java/util/Properties.html) props)

Creates a new ORB instance for a standalone application. This method may be called from applications only and returns a new fully functional ORB object each time it is called.

**Parameters:**args - command-line arguments for the application's main method; may be nullprops - application-specific properties; may be null **Returns:**the newly-created ORB instance

### init

public static [ORB](http://docs.google.com/org/omg/CORBA/ORB.html) **init**([Applet](http://docs.google.com/java/applet/Applet.html) app,  
 [Properties](http://docs.google.com/java/util/Properties.html) props)

Creates a new ORB instance for an applet. This method may be called from applets only and returns a new fully-functional ORB object each time it is called.

**Parameters:**app - the applet; may be nullprops - applet-specific properties; may be null **Returns:**the newly-created ORB instance

### set\_parameters

protected abstract void **set\_parameters**([String](http://docs.google.com/java/lang/String.html)[] args,  
 [Properties](http://docs.google.com/java/util/Properties.html) props)

Allows the ORB implementation to be initialized with the given parameters and properties. This method, used in applications only, is implemented by subclass ORB implementations and called by the appropriate init method to pass in its parameters.

**Parameters:**args - command-line arguments for the application's main method; may be nullprops - application-specific properties; may be null

### set\_parameters

protected abstract void **set\_parameters**([Applet](http://docs.google.com/java/applet/Applet.html) app,  
 [Properties](http://docs.google.com/java/util/Properties.html) props)

Allows the ORB implementation to be initialized with the given applet and parameters. This method, used in applets only, is implemented by subclass ORB implementations and called by the appropriate init method to pass in its parameters.

**Parameters:**app - the applet; may be nullprops - applet-specific properties; may be null

### connect

public void **connect**([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)

Connects the given servant object (a Java object that is an instance of the server implementation class) to the ORB. The servant class must extend the ImplBase class corresponding to the interface that is supported by the server. The servant must thus be a CORBA object reference, and inherit from org.omg.CORBA.Object. Servants created by the user can start receiving remote invocations after the method connect has been called. A servant may also be automatically and implicitly connected to the ORB if it is passed as an IDL parameter in an IDL method invocation on a non-local object, that is, if the servant object has to be marshalled and sent outside of the process address space.

Calling the method connect has no effect when the servant object is already connected to the ORB.

Deprecated by the OMG in favor of the Portable Object Adapter APIs.

**Parameters:**obj - The servant object reference

### destroy

public void **destroy**()

Destroys the ORB so that its resources can be reclaimed. Any operation invoked on a destroyed ORB reference will throw the OBJECT\_NOT\_EXIST exception. Once an ORB has been destroyed, another call to init with the same ORBid will return a reference to a newly constructed ORB.

If destroy is called on an ORB that has not been shut down, it will start the shut down process and block until the ORB has shut down before it destroys the ORB.

If an application calls destroy in a thread that is currently servicing an invocation, the BAD\_INV\_ORDER system exception will be thrown with the OMG minor code 3, since blocking would result in a deadlock.

For maximum portability and to avoid resource leaks, an application should always call shutdown and destroy on all ORB instances before exiting.

**Throws:** [BAD\_INV\_ORDER](http://docs.google.com/org/omg/CORBA/BAD_INV_ORDER.html) - if the current thread is servicing an invocation

### disconnect

public void **disconnect**([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)

Disconnects the given servant object from the ORB. After this method returns, the ORB will reject incoming remote requests for the disconnected servant and will send the exception org.omg.CORBA.OBJECT\_NOT\_EXIST back to the remote client. Thus the object appears to be destroyed from the point of view of remote clients. Note, however, that local requests issued using the servant directly do not pass through the ORB; hence, they will continue to be processed by the servant.

Calling the method disconnect has no effect if the servant is not connected to the ORB.

Deprecated by the OMG in favor of the Portable Object Adapter APIs.

**Parameters:**obj - The servant object to be disconnected from the ORB

### list\_initial\_services

public abstract [String](http://docs.google.com/java/lang/String.html)[] **list\_initial\_services**()

Returns a list of the initially available CORBA object references, such as "NameService" and "InterfaceRepository".

**Returns:**an array of String objects that represent the object references for CORBA services that are initially available with this ORB

### resolve\_initial\_references

public abstract [Object](http://docs.google.com/org/omg/CORBA/Object.html) **resolve\_initial\_references**([String](http://docs.google.com/java/lang/String.html) object\_name)  
 throws [InvalidName](http://docs.google.com/org/omg/CORBA/ORBPackage/InvalidName.html)

Resolves a specific object reference from the set of available initial service names.

**Parameters:**object\_name - the name of the initial service as a string **Returns:**the object reference associated with the given name **Throws:** [InvalidName](http://docs.google.com/org/omg/CORBA/ORBPackage/InvalidName.html) - if the given name is not associated with a known service

### object\_to\_string

public abstract [String](http://docs.google.com/java/lang/String.html) **object\_to\_string**([Object](http://docs.google.com/org/omg/CORBA/Object.html) obj)

Converts the given CORBA object reference to a string. Note that the format of this string is predefined by IIOP, allowing strings generated by a different ORB to be converted back into an object reference.

The resulting String object may be stored or communicated in any way that a String object can be manipulated.

**Parameters:**obj - the object reference to stringify **Returns:**the string representing the object reference

### string\_to\_object

public abstract [Object](http://docs.google.com/org/omg/CORBA/Object.html) **string\_to\_object**([String](http://docs.google.com/java/lang/String.html) str)

Converts a string produced by the method object\_to\_string back to a CORBA object reference.

**Parameters:**str - the string to be converted back to an object reference. It must be the result of converting an object reference to a string using the method object\_to\_string. **Returns:**the object reference

### create\_list

public abstract [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) **create\_list**(int count)

Allocates an NVList with (probably) enough space for the specified number of NamedValue objects. Note that the specified size is only a hint to help with storage allocation and does not imply the maximum size of the list.

**Parameters:**count - suggested number of NamedValue objects for which to allocate space **Returns:**the newly-created NVList**See Also:**[NVList](http://docs.google.com/org/omg/CORBA/NVList.html)

### create\_operation\_list

public [NVList](http://docs.google.com/org/omg/CORBA/NVList.html) **create\_operation\_list**([Object](http://docs.google.com/org/omg/CORBA/Object.html) oper)

Creates an NVList initialized with argument descriptions for the operation described in the given OperationDef object. This OperationDef object is obtained from an Interface Repository. The arguments in the returned NVList object are in the same order as in the original IDL operation definition, which makes it possible for the list to be used in dynamic invocation requests.

**Parameters:**oper - the OperationDef object to use to create the list **Returns:**a newly-created NVList object containing descriptions of the arguments to the method described in the given OperationDef object**See Also:**[NVList](http://docs.google.com/org/omg/CORBA/NVList.html)

### create\_named\_value

public abstract [NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html) **create\_named\_value**([String](http://docs.google.com/java/lang/String.html) s,  
 [Any](http://docs.google.com/org/omg/CORBA/Any.html) any,  
 int flags)

Creates a NamedValue object using the given name, value, and argument mode flags.

A NamedValue object serves as (1) a parameter or return value or (2) a context property. It may be used by itself or as an element in an NVList object.

**Parameters:**s - the name of the NamedValue objectany - the Any value to be inserted into the NamedValue objectflags - the argument mode flags for the NamedValue: one of ARG\_IN.value, ARG\_OUT.value, or ARG\_INOUT.value. **Returns:**the newly-created NamedValue object**See Also:**[NamedValue](http://docs.google.com/org/omg/CORBA/NamedValue.html)

### create\_exception\_list

public abstract [ExceptionList](http://docs.google.com/org/omg/CORBA/ExceptionList.html) **create\_exception\_list**()

Creates an empty ExceptionList object.

**Returns:**the newly-created ExceptionList object

### create\_context\_list

public abstract [ContextList](http://docs.google.com/org/omg/CORBA/ContextList.html) **create\_context\_list**()

Creates an empty ContextList object.

**Returns:**the newly-created ContextList object**See Also:**[ContextList](http://docs.google.com/org/omg/CORBA/ContextList.html), [Context](http://docs.google.com/org/omg/CORBA/Context.html)

### get\_default\_context

public abstract [Context](http://docs.google.com/org/omg/CORBA/Context.html) **get\_default\_context**()

Gets the default Context object.

**Returns:**the default Context object**See Also:**[Context](http://docs.google.com/org/omg/CORBA/Context.html)

### create\_environment

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

Creates an Environment object.

**Returns:**the newly-created Environment object**See Also:**[Environment](http://docs.google.com/org/omg/CORBA/Environment.html)

### create\_output\_stream

public abstract [OutputStream](http://docs.google.com/org/omg/CORBA/portable/OutputStream.html) **create\_output\_stream**()

Creates a new org.omg.CORBA.portable.OutputStream into which IDL method parameters can be marshalled during method invocation.

**Returns:**the newly-created org.omg.CORBA.portable.OutputStream object

### send\_multiple\_requests\_oneway

public abstract void **send\_multiple\_requests\_oneway**([Request](http://docs.google.com/org/omg/CORBA/Request.html)[] req)

Sends multiple dynamic (DII) requests asynchronously without expecting any responses. Note that oneway invocations are not guaranteed to reach the server.

**Parameters:**req - an array of request objects

### send\_multiple\_requests\_deferred

public abstract void **send\_multiple\_requests\_deferred**([Request](http://docs.google.com/org/omg/CORBA/Request.html)[] req)

Sends multiple dynamic (DII) requests asynchronously.

**Parameters:**req - an array of Request objects

### poll\_next\_response

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

Finds out if any of the deferred (asynchronous) invocations have a response yet.

**Returns:**true if there is a response available; false otherwise

### get\_next\_response

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

Gets the next Request instance for which a response has been received.

**Returns:**the next Request object ready with a response **Throws:** [WrongTransaction](http://docs.google.com/org/omg/CORBA/WrongTransaction.html) - if the method get\_next\_response is called from a transaction scope different from the one from which the original request was sent. See the OMG Transaction Service specification for details.

### get\_primitive\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **get\_primitive\_tc**([TCKind](http://docs.google.com/org/omg/CORBA/TCKind.html) tcKind)

Retrieves the TypeCode object that represents the given primitive IDL type.

**Parameters:**tcKind - the TCKind instance corresponding to the desired primitive type **Returns:**the requested TypeCode object

### create\_struct\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_struct\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [StructMember](http://docs.google.com/org/omg/CORBA/StructMember.html)[] members)

Creates a TypeCode object representing an IDL struct. The TypeCode object is initialized with the given id, name, and members.

**Parameters:**id - the repository id for the structname - the name of the structmembers - an array describing the members of the struct **Returns:**a newly-created TypeCode object describing an IDL struct

### create\_union\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_union\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) discriminator\_type,  
 [UnionMember](http://docs.google.com/org/omg/CORBA/UnionMember.html)[] members)

Creates a TypeCode object representing an IDL union. The TypeCode object is initialized with the given id, name, discriminator type, and members.

**Parameters:**id - the repository id of the unionname - the name of the uniondiscriminator\_type - the type of the union discriminatormembers - an array describing the members of the union **Returns:**a newly-created TypeCode object describing an IDL union

### create\_enum\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_enum\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [String](http://docs.google.com/java/lang/String.html)[] members)

Creates a TypeCode object representing an IDL enum. The TypeCode object is initialized with the given id, name, and members.

**Parameters:**id - the repository id for the enumname - the name for the enummembers - an array describing the members of the enum **Returns:**a newly-created TypeCode object describing an IDL enum

### create\_alias\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_alias\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) original\_type)

Creates a TypeCode object representing an IDL alias (typedef). The TypeCode object is initialized with the given id, name, and original type.

**Parameters:**id - the repository id for the aliasname - the name for the aliasoriginal\_type - the TypeCode object describing the original type for which this is an alias **Returns:**a newly-created TypeCode object describing an IDL alias

### create\_exception\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_exception\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [StructMember](http://docs.google.com/org/omg/CORBA/StructMember.html)[] members)

Creates a TypeCode object representing an IDL exception. The TypeCode object is initialized with the given id, name, and members.

**Parameters:**id - the repository id for the exceptionname - the name for the exceptionmembers - an array describing the members of the exception **Returns:**a newly-created TypeCode object describing an IDL exception

### create\_interface\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_interface\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name)

Creates a TypeCode object representing an IDL interface. The TypeCode object is initialized with the given id and name.

**Parameters:**id - the repository id for the interfacename - the name for the interface **Returns:**a newly-created TypeCode object describing an IDL interface

### create\_string\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_string\_tc**(int bound)

Creates a TypeCode object representing a bounded IDL string. The TypeCode object is initialized with the given bound, which represents the maximum length of the string. Zero indicates that the string described by this type code is unbounded.

**Parameters:**bound - the bound for the string; cannot be negative **Returns:**a newly-created TypeCode object describing a bounded IDL string **Throws:** [BAD\_PARAM](http://docs.google.com/org/omg/CORBA/BAD_PARAM.html) - if bound is a negative value

### create\_wstring\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_wstring\_tc**(int bound)

Creates a TypeCode object representing a bounded IDL wstring (wide string). The TypeCode object is initialized with the given bound, which represents the maximum length of the wide string. Zero indicates that the string described by this type code is unbounded.

**Parameters:**bound - the bound for the wstring; cannot be negative **Returns:**a newly-created TypeCode object describing a bounded IDL wstring **Throws:** [BAD\_PARAM](http://docs.google.com/org/omg/CORBA/BAD_PARAM.html) - if bound is a negative value

### create\_sequence\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_sequence\_tc**(int bound,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) element\_type)

Creates a TypeCode object representing an IDL sequence. The TypeCode object is initialized with the given bound and element type.

**Parameters:**bound - the bound for the sequence, 0 if unboundedelement\_type - the TypeCode object describing the elements contained in the sequence **Returns:**a newly-created TypeCode object describing an IDL sequence

### create\_recursive\_sequence\_tc

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_recursive\_sequence\_tc**(int bound,  
 int offset)

**Deprecated.** *Use a combination of create\_recursive\_tc and create\_sequence\_tc instead*

Creates a TypeCode object representing a a recursive IDL sequence.

For the IDL struct Node in following code fragment, the offset parameter for creating its sequence would be 1:

Struct Node {  
 long value;  
 Sequence <Node> subnodes;  
 };

**Parameters:**bound - the bound for the sequence, 0 if unboundedoffset - the index to the enclosing TypeCode object that describes the elements of this sequence **Returns:**a newly-created TypeCode object describing a recursive sequence**See Also:**[create\_recursive\_tc](http://docs.google.com/org/omg/CORBA/ORB.html#create_recursive_tc(java.lang.String)), [create\_sequence\_tc](http://docs.google.com/org/omg/CORBA/ORB.html#create_sequence_tc(int,%20org.omg.CORBA.TypeCode))

### create\_array\_tc

public abstract [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_array\_tc**(int length,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) element\_type)

Creates a TypeCode object representing an IDL array. The TypeCode object is initialized with the given length and element type.

**Parameters:**length - the length of the arrayelement\_type - a TypeCode object describing the type of element contained in the array **Returns:**a newly-created TypeCode object describing an IDL array

### create\_native\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_native\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name)

Create a TypeCode object for an IDL native type.

**Parameters:**id - the logical id for the native type.name - the name of the native type. **Returns:**the requested TypeCode.

### create\_abstract\_interface\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_abstract\_interface\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name)

Create a TypeCode object for an IDL abstract interface.

**Parameters:**id - the logical id for the abstract interface type.name - the name of the abstract interface type. **Returns:**the requested TypeCode.

### create\_fixed\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_fixed\_tc**(short digits,  
 short scale)

Create a TypeCode object for an IDL fixed type.

**Parameters:**digits - specifies the total number of decimal digits in the number and must be from 1 to 31 inclusive.scale - specifies the position of the decimal point. **Returns:**the requested TypeCode.

### create\_value\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_value\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 short type\_modifier,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) concrete\_base,  
 [ValueMember](http://docs.google.com/org/omg/CORBA/ValueMember.html)[] members)

Create a TypeCode object for an IDL value type. The concrete\_base parameter is the TypeCode for the immediate concrete valuetype base of the valuetype for which the TypeCode is being created. It may be null if the valuetype does not have a concrete base.

**Parameters:**id - the logical id for the value type.name - the name of the value type.type\_modifier - one of the value type modifier constants: VM\_NONE, VM\_CUSTOM, VM\_ABSTRACT or VM\_TRUNCATABLEconcrete\_base - a TypeCode object describing the concrete valuetype basemembers - an array containing the members of the value type **Returns:**the requested TypeCode

### create\_recursive\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_recursive\_tc**([String](http://docs.google.com/java/lang/String.html) id)

Create a recursive TypeCode object which serves as a placeholder for a concrete TypeCode during the process of creating TypeCodes which contain recursion. The id parameter specifies the repository id of the type for which the recursive TypeCode is serving as a placeholder. Once the recursive TypeCode has been properly embedded in the enclosing TypeCode which corresponds to the specified repository id, it will function as a normal TypeCode. Invoking operations on the recursive TypeCode before it has been embedded in the enclosing TypeCode will result in a BAD\_TYPECODE exception.

For example, the following IDL type declaration contains recursion:

Struct Node {  
 Sequence<Node> subnodes;  
 };

To create a TypeCode for struct Node, you would invoke the TypeCode creation operations as shown below:

String nodeID = "IDL:Node:1.0";  
 TypeCode recursiveSeqTC = orb.create\_sequence\_tc(0, orb.create\_recursive\_tc(nodeID));  
 StructMember[] members = { new StructMember("subnodes", recursiveSeqTC, null) };  
 TypeCode structNodeTC = orb.create\_struct\_tc(nodeID, "Node", members);

Also note that the following is an illegal IDL type declaration:

Struct Node {  
 Node next;  
 };

Recursive types can only appear within sequences which can be empty. That way marshaling problems, when transmitting the struct in an Any, are avoided.

**Parameters:**id - the logical id of the referenced type **Returns:**the requested TypeCode

### create\_value\_box\_tc

public [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) **create\_value\_box\_tc**([String](http://docs.google.com/java/lang/String.html) id,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) boxed\_type)

Creates a TypeCode object for an IDL value box.

**Parameters:**id - the logical id for the value typename - the name of the value typeboxed\_type - the TypeCode for the type **Returns:**the requested TypeCode

### create\_any

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

Creates an IDL Any object initialized to contain a Typecode object whose kind field is set to TCKind.tc\_null.

**Returns:**a newly-created Any object

### get\_current

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [Current](http://docs.google.com/org/omg/CORBA/Current.html) **get\_current**()

**Deprecated.** *use resolve\_initial\_references.*

Retrieves a Current object. The Current interface is used to manage thread-specific information for use by services such as transactions and security.

**Returns:**a newly-created Current object**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### run

public void **run**()

This operation blocks the current thread until the ORB has completed the shutdown process, initiated when some thread calls shutdown. It may be used by multiple threads which get all notified when the ORB shuts down.

### shutdown

public void **shutdown**(boolean wait\_for\_completion)

Instructs the ORB to shut down, which causes all object adapters to shut down, in preparation for destruction.

If the wait\_for\_completion parameter is true, this operation blocks until all ORB processing (including processing of currently executing requests, object deactivation, and other object adapter operations) has completed. If an application does this in a thread that is currently servicing an invocation, the BAD\_INV\_ORDER system exception will be thrown with the OMG minor code 3, since blocking would result in a deadlock.

If the wait\_for\_completion parameter is FALSE, then shutdown may not have completed upon return.

While the ORB is in the process of shutting down, the ORB operates as normal, servicing incoming and outgoing requests until all requests have been completed. Once an ORB has shutdown, only object reference management operations may be invoked on the ORB or any object reference obtained from it. An application may also invoke the destroy operation on the ORB itself. Invoking any other operation will throw the BAD\_INV\_ORDER system exception with the OMG minor code 4.

The ORB.run method will return after shutdown has been called.

**Parameters:**wait\_for\_completion - true if the call should block until the shutdown is complete; false if it should return immediately **Throws:** [BAD\_INV\_ORDER](http://docs.google.com/org/omg/CORBA/BAD_INV_ORDER.html) - if the current thread is servicing an invocation

### work\_pending

public boolean **work\_pending**()

Returns true if the ORB needs the main thread to perform some work, and false if the ORB does not need the main thread.

**Returns:**true if there is work pending, meaning that the ORB needs the main thread to perform some work; false if there is no work pending and thus the ORB does not need the main thread

### perform\_work

public void **perform\_work**()

Performs an implementation-dependent unit of work if called by the main thread. Otherwise it does nothing. The methods work\_pending and perform\_work can be used in conjunction to implement a simple polling loop that multiplexes the main thread among the ORB and other activities.

### get\_service\_information

public boolean **get\_service\_information**(short service\_type,  
 [ServiceInformationHolder](http://docs.google.com/org/omg/CORBA/ServiceInformationHolder.html) service\_info)

Used to obtain information about CORBA facilities and services that are supported by this ORB. The service type for which information is being requested is passed in as the in parameter service\_type, the values defined by constants in the CORBA module. If service information is available for that type, that is returned in the out parameter service\_info, and the operation returns the value true. If no information for the requested services type is available, the operation returns false (i.e., the service is not supported by this ORB).

**Parameters:**service\_type - a short indicating the service type for which information is being requestedservice\_info - a ServiceInformationHolder object that will hold the ServiceInformation object produced by this method **Returns:**true if service information is available for the service\_type; false if no information for the requested services type is available**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_any

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynAny](http://docs.google.com/org/omg/CORBA/DynAny.html) **create\_dyn\_any**([Any](http://docs.google.com/org/omg/CORBA/Any.html) value)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynAny object from the given Any object.

**Parameters:**value - the Any object from which to create a new DynAny object **Returns:**the new DynAny object created from the given Any object**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_basic\_dyn\_any

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynAny](http://docs.google.com/org/omg/CORBA/DynAny.html) **create\_basic\_dyn\_any**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a basic DynAny object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynAny object **Returns:**the new DynAny object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_struct

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynStruct](http://docs.google.com/org/omg/CORBA/DynStruct.html) **create\_dyn\_struct**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynStruct object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynStruct object **Returns:**the new DynStruct object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_sequence

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynSequence](http://docs.google.com/org/omg/CORBA/DynSequence.html) **create\_dyn\_sequence**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynSequence object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynSequence object **Returns:**the new DynSequence object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_array

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynArray](http://docs.google.com/org/omg/CORBA/DynArray.html) **create\_dyn\_array**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynArray object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynArray object **Returns:**the new DynArray object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_union

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynUnion](http://docs.google.com/org/omg/CORBA/DynUnion.html) **create\_dyn\_union**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynUnion object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynUnion object **Returns:**the new DynUnion object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_dyn\_enum

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public [DynEnum](http://docs.google.com/org/omg/CORBA/DynEnum.html) **create\_dyn\_enum**([TypeCode](http://docs.google.com/org/omg/CORBA/TypeCode.html) type)  
 throws [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html)

**Deprecated.** *Use the new* [*DynAnyFactory*](http://docs.google.com/DynamicAny/DynAnyFactory.html) *API instead*

Creates a new DynEnum object from the given TypeCode object.

**Parameters:**type - the TypeCode object from which to create a new DynEnum object **Returns:**the new DynEnum object created from the given TypeCode object **Throws:** [InconsistentTypeCode](http://docs.google.com/org/omg/CORBA/ORBPackage/InconsistentTypeCode.html) - if the given TypeCode object is not consistent with the operation.**See Also:**[CORBA package comments for unimplemented features](http://docs.google.com/package-summary.html#unimpl)

### create\_policy

public [Policy](http://docs.google.com/org/omg/CORBA/Policy.html) **create\_policy**(int type,  
 [Any](http://docs.google.com/org/omg/CORBA/Any.html) val)  
 throws [PolicyError](http://docs.google.com/org/omg/CORBA/PolicyError.html)

Can be invoked to create new instances of policy objects of a specific type with specified initial state. If create\_policy fails to instantiate a new Policy object due to its inability to interpret the requested type and content of the policy, it raises the PolicyError exception with the appropriate reason.

**Parameters:**type - the PolicyType of the policy object to be createdval - the value that will be used to set the initial state of the Policy object that is created **Returns:**Reference to a newly created Policy object of type specified by the type parameter and initialized to a state specified by the val parameter **Throws:** org.omg.CORBA.PolicyError - when the requested policy is not supported or a requested initial state for the policy is not supported. [PolicyError](http://docs.google.com/org/omg/CORBA/PolicyError.html)

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

[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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