

## Java™ 2 Platform Standard Edition 5.0 API Specification

This document is the API specification for the Java 2 Platform Standard Edition 5.0.

See:

[Description](#)

Java 2 Platform Packages	
<a href="#">java.applet</a>	Provides the classes necessary to create an applet and the classes an applet uses to communicate with its applet context.
<a href="#">java.awt</a>	Contains all of the classes for creating user interfaces and for painting graphics and images.
<a href="#">java.awt.color</a>	Provides classes for color spaces.
<a href="#">java.awt.datatransfer</a>	Provides interfaces and classes for transferring data between and within applications.
<a href="#">java.awt.dnd</a>	Drag and Drop is a direct manipulation gesture found in many Graphical User Interface systems that provides a mechanism to transfer information between two entities logically associated with presentation elements in the GUI.
<a href="#">java.awt.event</a>	Provides interfaces and classes for dealing with different types of events fired by AWT components.
<a href="#">java.awt.font</a>	Provides classes and interface relating to fonts.
<a href="#">java.awt.geom</a>	Provides the Java 2D classes for defining and performing operations on objects related to two-dimensional geometry.
<a href="#">java.awt.im</a>	Provides classes and interfaces for the input method framework.
<a href="#">java.awt.im.spi</a>	Provides interfaces that enable the development of input methods that can be used with any Java runtime environment.
<a href="#">java.awt.image</a>	Provides classes for creating and modifying images.
<a href="#">java.awt.image.renderable</a>	Provides classes and interfaces for producing rendering-independent images.
<a href="#">java.awt.print</a>	Provides classes and interfaces for a general printing API.
<a href="#">java.beans</a>	Contains classes related to developing <i>beans</i> -- components based on the JavaBeans™ architecture.
<a href="#">java.beans.beancontext</a>	Provides classes and interfaces relating to bean context.
<a href="#">java.io</a>	Provides for system input and output through data streams, serialization and the file system.
<a href="#">java.lang</a>	Provides classes that are fundamental to the design of the Java programming language.
<a href="#">java.lang.annotation</a>	Provides library support for the Java programming language annotation facility.
<a href="#">java.lang.instrument</a>	Provides services that allow Java programming language agents to instrument programs running on the JVM.
<a href="#">java.lang.management</a>	Provides the management interface for monitoring and management of the Java virtual machine as well as the operating system on which the Java virtual machine is running.
<a href="#">java.lang.ref</a>	Provides reference-object classes, which support a limited degree of interaction with the garbage collector.
<a href="#">java.lang.reflect</a>	Provides classes and interfaces for obtaining reflective information about classes and objects.
<a href="#">java.math</a>	Provides classes for performing arbitrary-precision integer arithmetic (BigInteger) and arbitrary-precision decimal arithmetic (BigDecimal).
<a href="#">java.net</a>	Provides the classes for implementing networking applications.
<a href="#">java.nio</a>	Defines buffers, which are containers for data, and provides an overview of the other NIO packages.
<a href="#">java.nio.channels</a>	Defines channels, which represent connections to entities that are capable of performing I/O operations, such as files and sockets; defines selectors, for multiplexed, non-blocking I/O operations.
<a href="#">java.nio.channels.spi</a>	Service-provider classes for the <a href="#">java.nio.channels</a> package.
<a href="#">java.nio.charset</a>	Defines charsets, decoders, and encoders, for translating between bytes and Unicode characters.
<a href="#">java.nio.charset.spi</a>	Service-provider classes for the <a href="#">java.nio.charset</a> package.
<a href="#">java.rmi</a>	Provides the RMI package.
<a href="#">java.rmi.activation</a>	Provides support for RMI Object Activation.

<a href="#">java.rmi.dgc</a>	Provides classes and interface for RMI distributed garbage-collection (DGC).
<a href="#">java.rmi.registry</a>	Provides a class and two interfaces for the RMI registry.
<a href="#">java.rmi.server</a>	Provides classes and interfaces for supporting the server side of RMI.
<a href="#">java.security</a>	Provides the classes and interfaces for the security framework.
<a href="#">java.security.acl</a>	The classes and interfaces in this package have been superseded by classes in the java.security package.
<a href="#">java.security.cert</a>	Provides classes and interfaces for parsing and managing certificates, certificate revocation lists (CRLs), and certification paths.
<a href="#">java.security.interfaces</a>	Provides interfaces for generating RSA (Rivest, Shamir and Adleman AsymmetricCipher algorithm) keys as defined in the RSA Laboratory Technical Note PKCS#1, and DSA (Digital Signature Algorithm) keys as defined in NIST's FIPS-186.
<a href="#">java.security.spec</a>	Provides classes and interfaces for key specifications and algorithm parameter specifications.
<a href="#">java.sql</a>	Provides the API for accessing and processing data stored in a data source (usually a relational database) using the Java™ programming language.
<a href="#">java.text</a>	Provides classes and interfaces for handling text, dates, numbers, and messages in a manner independent of natural languages.
<a href="#">java.util</a>	Contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes (a string tokenizer, a random-number generator, and a bit array).
<a href="#">java.util.concurrent</a>	Utility classes commonly useful in concurrent programming.
<a href="#">java.util.concurrent.atomic</a>	A small toolkit of classes that support lock-free thread-safe programming on single variables.
<a href="#">java.util.concurrent.locks</a>	Interfaces and classes providing a framework for locking and waiting for conditions that is distinct from built-in synchronization and monitors.
<a href="#">java.util.jar</a>	Provides classes for reading and writing the JAR (Java ARchive) file format, which is based on the standard ZIP file format with an optional manifest file.
<a href="#">java.util.logging</a>	Provides the classes and interfaces of the Java™ 2 platform's core logging facilities.
<a href="#">java.util.prefs</a>	This package allows applications to store and retrieve user and system preference and configuration data.
<a href="#">java.util.regex</a>	Classes for matching character sequences against patterns specified by regular expressions.
<a href="#">java.util.zip</a>	Provides classes for reading and writing the standard ZIP and GZIP file formats.
<a href="#">javax.accessibility</a>	Defines a contract between user-interface components and an assistive technology that provides access to those components.
<a href="#">javax.crypto</a>	Provides the classes and interfaces for cryptographic operations.
<a href="#">javax.crypto.interfaces</a>	Provides interfaces for Diffie-Hellman keys as defined in RSA Laboratories' PKCS #3.
<a href="#">javax.crypto.spec</a>	Provides classes and interfaces for key specifications and algorithm parameter specifications.
<a href="#">javax.imageio</a>	The main package of the Java Image I/O API.
<a href="#">javax.imageio.event</a>	A package of the Java Image I/O API dealing with synchronous notification of events during the reading and writing of images.
<a href="#">javax.imageio.metadata</a>	A package of the Java Image I/O API dealing with reading and writing metadata.
<a href="#">javax.imageio.plugins.bmp</a>	Package containing the public classes used by the built-in BMP plug-in.
<a href="#">javax.imageio.plugins.jpeg</a>	Classes supporting the built-in JPEG plug-in.
<a href="#">javax.imageio.spi</a>	A package of the Java Image I/O API containing the plug-in interfaces for readers, writers, transcoders, and streams, and a runtime registry.
<a href="#">javax.imageio.stream</a>	A package of the Java Image I/O API dealing with low-level I/O from files and streams.
<a href="#">javax.management</a>	Provides the core classes for the Java Management Extensions.
<a href="#">javax.management.loading</a>	Provides the classes which implement advanced dynamic loading.
<a href="#">javax.management.modelmbean</a>	Provides the definition of the ModelMBean classes.
<a href="#">javax.management.monitor</a>	Provides the definition of the monitor classes.
<a href="#">javax.management.openmbean</a>	Provides the open data types and Open MBean descriptor classes.
<a href="#">javax.management.relation</a>	Provides the definition of the Relation Service.
<a href="#">javax.management.remote</a>	Interfaces for remote access to JMX MBean servers.
<a href="#">javax.management.remote.rmi</a>	The RMI connector is a connector for the JMX Remote API that uses RMI to transmit client requests to a remote MBean server.
<a href="#">javax.management.timer</a>	Provides the definition of the Timer MBean.
<a href="#">javax.naming</a>	Provides the classes and interfaces for accessing naming services.

<a href="#">javax.naming.directory</a>	Extends the <code>javax.naming</code> package to provide functionality for accessing directory services.
<a href="#">javax.naming.event</a>	Provides support for event notification when accessing naming and directory services.
<a href="#">javax.naming.ldap</a>	Provides support for LDAPv3 extended operations and controls.
<a href="#">javax.naming.spi</a>	Provides the means for dynamically plugging in support for accessing naming and directory services through the <code>javax.naming</code> and related packages.
<a href="#">javax.net</a>	Provides classes for networking applications.
<a href="#">javax.net.ssl</a>	Provides classes for the secure socket package.
<a href="#">javax.print</a>	Provides the principal classes and interfaces for the Java™ Print Service API.
<a href="#">javax.print.attribute</a>	Provides classes and interfaces that describe the types of Java™ Print Service attributes and how they can be collected into attribute sets.
<a href="#">javax.print.attribute.standard</a>	Package <code>javax.print.attribute.standard</code> contains classes for specific printing attributes.
<a href="#">javax.print.event</a>	Package <code>javax.print.event</code> contains event classes and listener interfaces.
<a href="#">javax.rmi</a>	Contains user APIs for RMI-IIOP.
<a href="#">javax.rmi.CORBA</a>	Contains portability APIs for RMI-IIOP.
<a href="#">javax.rmi.ssl</a>	Provides implementations of <a href="#">RMIClientSocketFactory</a> and <a href="#">RMIServerSocketFactory</a> over the Secure Sockets Layer (SSL) or Transport Layer Security (TLS) protocols.
<a href="#">javax.security.auth</a>	This package provides a framework for authentication and authorization.
<a href="#">javax.security.auth.callback</a>	This package provides the classes necessary for services to interact with applications in order to retrieve information (authentication data including usernames or passwords, for example) or to display information (error and warning messages, for example).
<a href="#">javax.security.auth.kerberos</a>	This package contains utility classes related to the Kerberos network authentication protocol.
<a href="#">javax.security.auth.login</a>	This package provides a pluggable authentication framework.
<a href="#">javax.security.auth.spi</a>	This package provides the interface to be used for implementing pluggable authentication modules.
<a href="#">javax.security.auth.x500</a>	This package contains the classes that should be used to store X500 Principal and X500 Private Credentials in a <i>Subject</i> .
<a href="#">javax.security.cert</a>	Provides classes for public key certificates.
<a href="#">javax.security.sasl</a>	Contains class and interfaces for supporting SASL.
<a href="#">javax.sound.midi</a>	Provides interfaces and classes for I/O, sequencing, and synthesis of MIDI (Musical Instrument Digital Interface) data.
<a href="#">javax.sound.midi.spi</a>	Supplies interfaces for service providers to implement when offering new MIDI devices, MIDI file readers and writers, or sound bank readers.
<a href="#">javax.sound.sampled</a>	Provides interfaces and classes for capture, processing, and playback of sampled audio data.
<a href="#">javax.sound.sampled.spi</a>	Supplies abstract classes for service providers to subclass when offering new audio devices, sound file readers and writers, or audio format converters.
<a href="#">javax.sql</a>	Provides the API for server side data source access and processing from the Java™ programming language.
<a href="#">javax.sql.rowset</a>	Standard interfaces and base classes for JDBC RowSet implementations.
<a href="#">javax.sql.rowset.serial</a>	Provides utility classes to allow serializable mappings between SQL types and data types in the Java programming language.
<a href="#">javax.sql.rowset.spi</a>	The standard classes and interfaces that a third party vendor has to use in its implementation of a synchronization provider.
<a href="#">javax.swing</a>	Provides a set of "lightweight" (all-Java language) components that, to the maximum degree possible, work the same on all platforms.
<a href="#">javax.swing.border</a>	Provides classes and interface for drawing specialized borders around a Swing component.
<a href="#">javax.swing.colorchooser</a>	Contains classes and interfaces used by the <code>JColorChooser</code> component.
<a href="#">javax.swing.event</a>	Provides for events fired by Swing components.
<a href="#">javax.swing.filechooser</a>	Contains classes and interfaces used by the <code>JFileChooser</code> component.
<a href="#">javax.swing.plaf</a>	Provides one interface and many abstract classes that Swing uses to provide its pluggable look-and-feel capabilities.
<a href="#">javax.swing.plaf.basic</a>	Provides user interface objects built according to the Basic look and feel.
<a href="#">javax.swing.plaf.metal</a>	Provides user interface objects built according to the Java look and feel (once codenamed <i>Metal</i> ), which is the default look and feel.
<a href="#">javax.swing.plaf.multi</a>	Provides user interface objects that combine two or more look and feels.
<a href="#">javax.swing.plaf.synth</a>	Synth is a skinnable look and feel in which all painting is delegated.
<a href="#">javax.swing.table</a>	Provides classes and interfaces for dealing with <code>javax.swing.JTable</code> .

<a href="#">javax.swing.text</a>	Provides classes and interfaces that deal with editable and noneditable text components.
<a href="#">javax.swing.text.html</a>	Provides the class <code>HTMLToolkit</code> and supporting classes for creating HTML text editors.
<a href="#">javax.swing.text.html.parser</a>	Provides the default HTML parser, along with support classes.
<a href="#">javax.swing.text.rtf</a>	Provides a class ( <code>RTFToolkit</code> ) for creating Rich-Text-Format text editors.
<a href="#">javax.swing.tree</a>	Provides classes and interfaces for dealing with <code>javax.swing.JTree</code> .
<a href="#">javax.swing.undo</a>	Allows developers to provide support for undo/redo in applications such as text editors.
<a href="#">javax.transaction</a>	Contains three exceptions thrown by the ORB machinery during unmarshalling.
<a href="#">javax.transaction.xa</a>	Provides the API that defines the contract between the transaction manager and the resource manager, which allows the transaction manager to enlist and delist resource objects (supplied by the resource manager driver) in JTA transactions.
<a href="#">javax.xml</a>	Defines core XML constants and functionality from the XML specifications.
<a href="#">javax.xml.datatype</a>	XML/Java Type Mappings.
<a href="#">javax.xml.namespace</a>	XML Namespace processing.
<a href="#">javax.xml.parsers</a>	Provides classes allowing the processing of XML documents.
<a href="#">javax.xml.transform</a>	This package defines the generic APIs for processing transformation instructions, and performing a transformation from source to result.
<a href="#">javax.xml.transform.dom</a>	This package implements DOM-specific transformation APIs.
<a href="#">javax.xml.transform.sax</a>	This package implements SAX2-specific transformation APIs.
<a href="#">javax.xml.transform.stream</a>	This package implements stream- and URI- specific transformation APIs.
<a href="#">javax.xml.validation</a>	This package provides an API for validation of XML documents.
<a href="#">javax.xml.xpath</a>	This package provides an <i>object-model neutral</i> API for the evaluation of XPath expressions and access to the evaluation environment.
<a href="#">org.jef.jgss</a>	This package presents a framework that allows application developers to make use of security services like authentication, data integrity and data confidentiality from a variety of underlying security mechanisms like Kerberos, using a unified API.
<a href="#">org.omg.CORBA</a>	Provides the mapping of the OMG CORBA APIs to the Java™ programming language, including the class <code>ORB</code> , which is implemented so that a programmer can use it as a fully-functional Object Request Broker (ORB).
<a href="#">org.omg.CORBA_2_3</a>	The <code>CORBA_2_3</code> package defines additions to existing CORBA interfaces in the Java 2 Standard Edition. These changes occurred in recent revisions to the CORBA API defined by the OMG. The new methods were added to interfaces derived from the corresponding interfaces in the CORBA package. This provides backward compatibility and avoids breaking the JCK tests.
<a href="#">org.omg.CORBA_2_3.portable</a>	Provides methods for the input and output of value types, and contains other updates to the <code>org.omg.CORBA/portable</code> package.
<a href="#">org.omg.CORBA.DynAnyPackage</a>	Provides the exceptions used with the <code>DynAny</code> interface ( <code>InvalidValue</code> , <code>Invalid</code> , <code>InvalidSeq</code> , and <code>TypeMismatch</code> ).
<a href="#">org.omg.CORBA.ORBPackage</a>	Provides the exception <code>InvalidName</code> , which is thrown by the method <code>ORB.resolve_initial_references</code> and the exception <code>InconsistentTypeCode</code> , which is thrown by the Dynamic Any creation methods in the <code>ORB</code> class.
<a href="#">org.omg.CORBA.portable</a>	Provides a portability layer, that is, a set of ORB APIs that makes it possible for code generated by one vendor to run on another vendor's ORB.
<a href="#">org.omg.CORBA.TypeCodePackage</a>	Provides the user-defined exceptions <code>BadKind</code> and <code>Bounds</code> , which are thrown by methods in in the class <code>TypeCode</code> .
<a href="#">org.omg.CosNaming</a>	Provides a naming service for Java IDL.
<a href="#">org.omg.CosNaming.NamingContextExtPackage</a>	This package contains the following classes, which are used in <code>org.omg.CosNaming.NamingContextExt</code> :
<a href="#">org.omg.CosNaming.NamingContextPackage</a>	This package contains Exception classes for the <code>org.omg.CosNaming</code> package.
<a href="#">org.omg.Dynamic</a>	This package contains the <code>Dynamic</code> module specified in the OMG Portable Interceptor specification, <a href="http://cgi.omg.org/cgi-bin/doc?ptc/2000-08-06">http://cgi.omg.org/cgi-bin/doc?ptc/2000-08-06</a> , section 21.9.
<a href="#">org.omg.DynamicAny</a>	Provides classes and interfaces that enable traversal of the data value associated with an any at runtime, and extraction of the primitive constituents of the data value.
<a href="#">org.omg.DynamicAny.DynAnyFactoryPackage</a>	This package contains classes and exceptions from the <code>DynAnyFactory</code> interface of the <code>DynamicAny</code> module specified in the OMG <i>The Common Object Request Broker: Architecture and Specification</i> , <a href="http://cgi.omg.org/cgi-bin/doc?formal/99-10-07">http://cgi.omg.org/cgi-bin/doc?formal/99-10-07</a> , section 9.2.2.
<a href="#">org.omg.DynamicAny.DynAnyPackage</a>	This package contains classes and exceptions from the <code>DynAny</code> interface of the <code>DynamicAny</code> module specified in the OMG <i>The Common Object Request Broker: Architecture and Specification</i> , <a href="http://cgi.omg.org/cgi-bin/doc?formal/99-10-07">http://cgi.omg.org/cgi-bin/doc?formal/99-10-07</a> , section 9.2.

<a href="#">org.omg.IOP</a>	This package contains the IOP module specified in the OMG document <i>The Common Object Request Broker: Architecture and Specification</i> , <a href="http://cgi.omg.org/cgi-bin/doc?formal/99-10-07">http://cgi.omg.org/cgi-bin/doc?formal/99-10-07</a> , section 13.6.
<a href="#">org.omg.IOP.CodecFactoryPackage</a>	This package contains the exceptions specified in the IOP::CodeFactory interface (as part of the Portable Interceptors spec).
<a href="#">org.omg.IOP.CodecPackage</a>	This package is generated from the IOP::Codec IDL interface definition.
<a href="#">org.omg.Messaging</a>	This package contains the Messaging module specified in the OMG CORBA Messaging specification, <a href="http://cgi.omg.org/cgi-bin/doc?formal/99-10-07">http://cgi.omg.org/cgi-bin/doc?formal/99-10-07</a> .
<a href="#">org.omg.PortableInterceptor</a>	Provides a mechanism to register ORB hooks through which ORB services can intercept the normal flow of execution of the ORB.
<a href="#">org.omg.PortableInterceptor.ORBInitInfoPackage</a>	This package contains the exceptions and typedefs from the ORBInitInfo local interface of the PortableInterceptor module specified in the OMG Portable Interceptor specification, <a href="http://cgi.omg.org/cgi-bin/doc?ptc/2000-08-06">http://cgi.omg.org/cgi-bin/doc?ptc/2000-08-06</a> , section 21.7.2.
<a href="#">org.omg.PortableServer</a>	Provides classes and interfaces for making the server side of your applications portable across multivendor ORBs.
<a href="#">org.omg.PortableServer.CurrentPackage</a>	Provides method implementations with access to the identity of the object on which the method was invoked.
<a href="#">org.omg.PortableServer.POAManagerPackage</a>	Encapsulates the processing state of the POAs it is associated with.
<a href="#">org.omg.PortableServer.POAPackage</a>	Allows programmers to construct object implementations that are portable between different ORB products.
<a href="#">org.omg.PortableServer.portable</a>	Provides classes and interfaces for making the server side of your applications portable across multivendor ORBs.
<a href="#">org.omg.PortableServer.ServantLocatorPackage</a>	Provides classes and interfaces for locating the servant.
<a href="#">org.omg.SendingContext</a>	Provides support for the marshalling of value types.
<a href="#">org.omg.stub.java.rmi</a>	Contains RMI-IIOP Stubs for the Remote types that occur in the java.rmi package.
<a href="#">org.w3c.dom</a>	Provides the interfaces for the Document Object Model (DOM) which is a component API of the <a href="#">Java API for XML Processing</a> .
<a href="#">org.w3c.dom.bootstrap</a>	
<a href="#">org.w3c.dom.events</a>	
<a href="#">org.w3c.dom.ls</a>	
<a href="#">org.xml.sax</a>	This package provides the core SAX APIs.
<a href="#">org.xml.sax.ext</a>	This package contains interfaces to SAX2 facilities that conformant SAX drivers won't necessarily support.
<a href="#">org.xml.sax.helpers</a>	This package contains "helper" classes, including support for bootstrapping SAX-based applications.

## Other Packages

<a href="#">javax.activity</a>	Contains Activity service related exceptions thrown by the ORB machinery during unmarshalling.
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For further API reference and developer documentation, see [Java 2 SDK SE Developer Documentation](#). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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