

# Java 6 standard edition Package List

Based on the package descriptions available at <http://java.sun.com/javase/6/docs/api/>

## Essential Core Packages

java.lang	Classes that are fundamental to the design of the Java programming language.
java.util	Contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, miscellaneous utility classes (a string tokenizer, a random-number generator).
java.io	System input and output through data streams, serialization and the file system.
java.math	Arbitrary-precision integer (BigInteger) and decimal (BigDecimal) arithmetic.
java.text	For handling text, dates, numbers, and messages in a manner independent of natural languages.
java.text.spi	Service provider classes for the classes in the java.text package.

## Concurrency Support

java.util.concurrent	Utility classes commonly useful in concurrent programming.
java.util.concurrent.atomic	Toolkit supporting lock-free thread-safe programming on single variables.
java.util.concurrent.locks	Framework for locking and waiting for conditions that is distinct from the built-in synchronization and monitors.

## SQL and Transactions

java.sql	API for accessing and processing data stored in a data source (e.g. a relational database).
javax.sql	Provides the API for server side data source access and processing from Java.
javax.sql.rowset	Standard interfaces and base classes for JDBC RowSet implementations.
javax.sql.rowset.serial	Utility classes to allow serializable mappings between SQL types and Java data types.
javax.sql.rowset.spi	Third party vendor support for their implementation of a synchronization provider.

## Miscellaneous Utilities

java.util.jar	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.
java.util.logging	Classes and interfaces of the Java™ 2 platform's core logging facilities.
java.util.prefs	Allows applications to store and retrieve user and system preference and configuration data.
java.util.regex	Classes for matching character sequences against patterns specified by regular expressions.
java.util.spi	Service provider classes for the classes in the java.util package.
java.util.zip	Classes for reading and writing the standard ZIP and GZIP file formats.
javax.script	Scripting API, defines Scripting Engines and provides framework for their use.

## Security and Cryptography

java.security	Classes and interfaces for the security framework.
java.security.acl	<i>This package has been superseded by the java.security package.</i>
java.security.cert	Handling certificates, certificate revocation lists (CRLs), and certification paths.
java.security.interfaces	Interfaces for generating RSA and DSA keys.
java.security.spec	Classes/interfaces for key specifications and algorithm parameter specifications.
javax.crypto	Classes and interfaces for cryptographic operations.
javax.crypto.interfaces	Interfaces for Diffie-Hellman keys as defined in RSA Laboratories' PKCS #3.
javax.crypto.spec	Classes/interfaces for key specifications and algorithm parameter specifications.
javax.security.auth	This package provides a framework for authentication and authorization.
javax.security.auth.callback	For application interaction, to display info (e.g. error and warning messages) or retrieve information (e.g. authentication data such as usernames, passwords)
javax.security.auth.kerberos	Utility classes related to the Kerberos network authentication protocol.
javax.security.auth.login	A pluggable authentication framework.
javax.security.auth.spi	Interface to be used for implementing pluggable authentication modules.
javax.security.auth.x500	Classes to store X500 Principal and X500 Private Credentials in a Subject.
javax.security.cert	Provides classes for public key certificates.
javax.security.sasl	Contains class and interfaces for supporting SASL.
javax.xml.crypto	Common classes for XML cryptography.
javax.xml.crypto.dom	DOM-specific classes for the javax.xml.crypto package.
javax.xml.crypto.dsig	Classes for generating and validating XML digital signatures.
javax.xml.crypto.dsig.dom	DOM-specific classes for the javax.xml.crypto.dsig package.
javax.xml.crypto.dsig.keyinfo	Classes for parsing and processing KeyInfo elements and structures.
javax.xml.crypto.dsig.spec	Parameter classes for XML digital signatures.
org.ietf.jgss	Unified API for using security services (e.g. authentication, data integrity, data confidentiality) from various underlying security mechanisms like Kerberos.

## I/O Facilities

java.nio	Defines buffers (data containers), and overviews other NIO packages.
java.nio.channels	Defines channels (connections to entities offering I/O operations, e.g. files and sockets) and selectors (for multiplexed, non-blocking I/O operations).
java.nio.channels.spi	Service-provider classes for the java.nio.channels package.
java.nio.charset	Charsets, decoders, and encoders, for translating between bytes and Unicode chars.
java.nio.charset.spi	Service-provider classes for the java.nio.charset package.

## UI Accessibility

javax.accessibility	Contract between UI components and assistive technology that provides access to them.
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## AWT and Swing GUI facilities

java.awt	Classes for creating user interfaces and for painting graphics and images.
java.awt.color	Classes for color spaces.
java.awt.datatransfer	Interfaces and classes for transferring data between and within applications.
java.awt.dnd	Drag and Drop transfer of info between two entities linked to GUI elements.
java.awt.event	Interfaces and classes for dealing with events fired by AWT components.
java.awt.font	Classes and interface relating to fonts.
java.awt.geom	Java 2D classes for defining/performing 2-D geometry operations on objects.
java.awt.im	Classes and interfaces for the input method framework.
java.awt.im.spi	Interfaces for input methods that can be used with any Java runtime environment.
java.awt.image	Classes for creating and modifying images.
java.awt.image.renderable	Classes and interfaces for producing rendering-independent images.
java.awt.print	Classes and interfaces for a general printing API.
javax.swing	"Lightweight" (all-Java) components that work similarly on all platforms.
javax.swing.border	Classes and interface for drawing specialized borders around a Swing component.
javax.swing.colorchooser	Classes and interfaces used by the JColorChooser component.
javax.swing.event	Events fired by Swing components.
javax.swing.filechooser	Classes and interfaces used by the JFileChooser component.
javax.swing.plaf	Provides Swing with its pluggable look-and-feel capabilities.
javax.swing.plaf.basic	User interface objects for the Basic look and feel.
javax.swing.plaf.metal	User interface objects for the (default) Java look and feel (once codenamed Metal).
javax.swing.plaf.multi	User interface objects that combine two or more look and feels.
javax.swing.plaf.synth	Synth is a skinnable look and feel in which all painting is delegated.
javax.swing.table	Classes and interfaces for dealing with javax.swing.JTable.
javax.swing.text	Classes and interfaces that deal with editable and noneditable text components.
javax.swing.text.html	Class HTMLToolkit and supporting classes for creating HTML text editors.
javax.swing.text.html.parser	Default HTML parser, along with support classes.
javax.swing.text.rtf	Class (RTFEditorKit) for creating Rich-Text-Format text editors.
javax.swing.tree	Classes and interfaces for dealing with javax.swing.JTree.
javax.swing.undo	Support for undo/redo in applications such as text editors.

## Image and Sound I/O

javax.imageio	The main package of the Java Image I/O API.
javax.imageio.event	For synchronous notification of events during the reading and writing of images.
javax.imageio.metadata	Supports reading and writing metadata.
javax.imageio.plugins.bmp	Public classes used by the built-in BMP plug-in.
javax.imageio.plugins.jpeg	Classes supporting the built-in JPEG plug-in.
javax.imageio.spi	Plug-in interfaces for readers, writers, transcoders, streams, & a runtime registry.
javax.imageio.stream	Supports low-level I/O from files and streams.
javax.sound.midi	Interfaces and classes for I/O, sequencing, and synthesis of MIDI data.
javax.sound.midi.spi	Support for new MIDI devices, file readers & writers, sound bank readers.
javax.sound.sampled	Interfaces and classes for capture, processing, and playback of sampled audio data.
javax.sound.sampled.spi	Support for new audio devices, sound file readers & writers, or audio format converters.

## Print Service

javax.print	Principal classes and interfaces for the Java Print Service API.
javax.print.attribute	Describing types of Print Service attributes and their collection into attribute sets.
javax.print.attribute.standard	contains classes for specific printing attributes.
javax.print.event	contains event classes and listener interfaces.

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## XML Support

javax.xml	Core XML constants and functionality from the XML specifications.
javax.xml.bind	JAXB Client applications' runtime bindings: unmarshalling, marshalling, validation.
javax.xml.bind.annotation	Annotations for customizing Java program elements to XML Schema mapping.
javax.xml.bind.annotation.adapters	XmlAdapter etc allow arbitrary Java classes to be used with JAXB.
javax.xml.bind.attachment	MIME-based package processor for interpretation/creation of optimized binary data.
javax.xml.bind.helpers	JAXB Providers Only: partial default implementations for javax.xml.bind interfaces.
javax.xml.bind.util	Useful client utility classes.
javax.xml.datatype	XML/Java Type Mappings.
javax.xml.namespace	XML Namespace processing.
javax.xml.parsers	Provides classes allowing the processing of XML documents.
javax.xml.stream	
javax.xml.stream.events	
javax.xml.stream.util	
javax.xml.transform	APIs for processing transformation instructions & transforming source to result.
javax.xml.transform.dom	DOM-specific transformation APIs.
javax.xml.transform.sax	SAX2-specific transformation APIs.
javax.xml.transform.stax	Provides for STAX-specific transformation APIs.
javax.xml.transform.stream	Stream- and URI- specific transformation APIs.
javax.xml.validation	API for validation of XML documents.
javax.xml.xpath	API for evaluating XPath expressions and accessing evaluation environment.
org.w3c.dom	Interfaces for Document Object Model (DOM) — part of JAXP
org.w3c.dom.bootstrap	
org.w3c.dom.events	
org.w3c.dom.ls	
org.xml.sax	The core SAX APIs.
org.xml.sax.ext	Interfaces to SAX2 facilities that conformant SAX drivers won't necessarily support.
org.xml.sax.helpers	"Helper" classes, including support for bootstrapping SAX-based applications.

## Applets and Web Services

java.applet	Classes to create an applet and enable it to communicate with its applet context.
javax.jws	Java Web Services
javax.jws.soap	Support for SOAP and Java Web Services
javax.xml.soap	The API for creating and building SOAP messages.
javax.xml.ws	The core JAX-WS APIs.
javax.xml.ws.handler	Defines APIs for message handlers.
javax.xml.ws.handler.soap	Defines APIs for SOAP message handlers.
javax.xml.ws.http	Defines APIs specific to the HTTP binding.
javax.xml.ws.soap	Defines APIs specific to the SOAP binding.
javax.xml.ws.spi	Defines SPIs for JAX-WS 2.0.

## Reflection, JVM Internals, Annotations and Language Modelling

java.lang.annotation	Support for the Java programming language annotation facility.
java.lang.instrument	Services that allow Java agents to instrument programs running on the JVM.
java.lang.management	Monitoring/management interface for the JVM and underlying OS.
java.lang.ref	Reference-object classes for limited interaction with the garbage collector.
java.lang.reflect	Classes/interfaces for obtaining reflective information about classes and objects.
javax.annotation	
javax.annotation.processing	Annotation processor declaration and communication with a tool environment.
javax.lang.model	Classes and hierarchies of packages used to model the Java programming language.
javax.lang.model.element	Interfaces used to model elements of the Java programming language.
javax.lang.model.type	Interfaces used to model Java programming language types.
javax.lang.model.util	Utilities to assist in the processing of program elements and types.
javax.tools	Interfaces for tools which can be invoked from a program, for example, compilers.

## Management Extensions

javax.management	Core classes for the Java Management Extensions.
javax.management.loading	Advanced dynamic loading.
javax.management.modelmbean	Definition of the ModelMBean classes.
javax.management.monitor	Definition of the monitor classes.
javax.management.openmbean	Open data types and Open MBean descriptor classes.
javax.management.relation	Definition of the Relation Service.
javax.management.remote	Interfaces for remote access to JMX MBean servers.
javax.management.remote.rmi	JMX Remote API connector: transmit client requests to remote MBean server using RMI.
javax.management.timer	Definition of the Timer MBean.

## Networked and Distributed Programming

java.net	Classes for implementing networking applications.
javax.net	Provides classes for networking applications.
javax.net.ssl	Provides classes for the secure socket package.
java.rmi	Provides the RMI package, for distributed programming using RPC.
java.rmi.activation	Support for RMI Object Activation.
java.rmi.dgc	Classes and interface for RMI distributed garbage-collection (DGC).
java.rmi.registry	Class and two interfaces for the RMI registry (simple name server).
java.rmi.server	Classes and interfaces for supporting the server side of RMI.
javax.rmi	Contains user APIs for RMI-IIOP.
javax.rmi.CORBA	Contains portability APIs for RMI-IIOP.
javax.rmi.ssl	RMI client & server socket factories for SSL and TLS protocols.
org.omg.stub.java.rmi	RMI-IIOP Stubs for the Remote types that occur in the java.rmi package.
javax.naming	Provides the classes and interfaces for accessing naming services.
javax.naming.directory	Extends javax.naming to provide functionality for accessing directory services.
javax.naming.event	Supports event notification when accessing naming and directory services.
javax.naming.ldap	Provides support for LDAPv3 extended operations and controls.
javax.naming.spi	Gives dynamic plug-in support for accessing naming and directory services.

## CORBA

javax.transaction	Exceptions thrown by the ORB machinery during unmarshalling.
javax.transaction.xa	Contract API for transaction manager (TM) & resource manager (RM), TM enlists/delists resource objects (from RM driver) in JTA transactions
javax.activity	Activity service unmarshalling exceptions thrown by ORB machinery.
org.omg.CORBA	Maps OMG CORBA APIs to Java, includes a fully-functional ORB.
org.omg.CORBA_2.3	Accommodates recent revisions to the CORBA API.
org.omg.CORBA_2.3.portable	Input and output of value types, and updates org/omg/CORBA/portable.
org.omg.CORBA.DynAnyPackage	DynAny exceptions (InvalidValue, Invalid, InvalidSeq, TypeMismatch).
org.omg.CORBA.ORBPackage	InvalidName and InconsistentTypeCode exceptions.
org.omg.CORBA.portable	Portability: code from one vendor can run on another vendor's ORB.
org.omg.CORBA.TypeCodePackage	User-defined BadKind and Bounds exceptions, used class TypeCode.
org.omg.CosNaming	Provides a naming service for Java IDL.
org.omg.CosNaming.NamingContextExtPackage	Provides classes used in org.omg.CosNaming.NamingContextExt
org.omg.CosNaming.NamingContextPackage	Exception classes for the org.omg.CosNaming package.
org.omg.Dynamic	Dynamic module for OMG Portable Interceptor specification
org.omg.DynamicAny	Allows runtime traversal an any, extracting primitive constituents.
org.omg.DynamicAny.DynAnyFactoryPackage	Classes/exceptions from DynAnyFactory interface of DynamicAny
org.omg.DynamicAny.DynAnyPackage	Classes/exceptions from DynAny interface of DynamicAny
org.omg.IOP	IOP module
org.omg.IOP.CodecFactoryPackage	Exceptions for IOP::CodecFactory interface (PortableInterceptors spec)
org.omg.IOP.CodecPackage	Generated from the IOP::Codec IDL interface definition.
org.omg.Messaging	Messaging module specified in the OMG CORBA Messaging spec
org.omg.PortableInterceptor	Internal ORB hooks: services can intercept normal flow of execution.
org.omg.PortableInterceptor.ORBInitInfoPackage	ORBInitInfo exceptions & typedefs (PortableInterceptor module)
org.omg.PortableServer	Makes server side of applications portable across multivendor ORBs.
org.omg.PortableServer.CurrentPackage	Access to the identity of the object on which the method was invoked.
org.omg.PortableServer.POAManagerPackage	Encapsulates the processing state of the POAs it is associated with.
org.omg.PortableServer.POAPackage	Construct object implementations portable between different ORBs.
org.omg.PortableServer.portable	Makes server side of applications portable across multivendor ORBs.
org.omg.PortableServer.ServantLocatorPackage	Classes and interfaces for locating the servant.
org.omg.SendingContext	Support for marshalling of value types.
org.omg.stub.java.rmi	Contains RMI-IIOP Stubs for java.rmi Remote types

## Component Management

java.beans	Bean development support.
java.beans.beancontext	Provides classes and interfaces relating to bean context.
javax.activation	

This sheet lists the packages contained in Java SE 6. Other Java packages are available, including, for example:

Java 3D, JMF, JMX, JWS, JINI, JXTA

See: <http://java.sun.com/reference/api/> for details.

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