JDK Tools and Utilities

cs.mun.ca/java-api-1.5/tooldocs/index.html

General

General Information (file structure, classpath, how classes are found, changes)

Standard JDK Tools and Utilities

- **Basic Tools** (javac, java, javadoc, apt, appletviewer, jar, jdb, javah, javap, extcheck)
- **Security Tools** (keytool, jarsigner, policytool, kinit, klist, ktab)
- **Internationalization Tools** (native2ascii)
- **Remote Method Invocation (RMI) Tools** (rmic, rmiregistry, rmid, serialver)
- **Java IDL and RMI-IIOP Tools** (tnameserv, idlj, orbd, servertool)
- **Java Deployment Tools** (pack200, unpack200)
- **Java Plug-in Tools** (htmlconverter)
- **Java Web Start Tools** (javaws)

Experimental JDK Tools and Utilities

NOTE - The tools described in this section are unsupported and **experimental** in nature and should be used with that in mind. They might not be available in future JDK versions.

- **Monitoring and Management Tools** (jconsole, jps, jstat, jstatd)
- **Troubleshooting Tools** (jinfo, jmap, jsadebugd, jstack)

NOTE - Some tools have separate reference pages for Windows, Linux and Solaris to accommodate minor differences in configuration and usage -- for example, the character used to specify directory separators may be different.

General Information

The following documents contain important information you will need to know to get the most out of the SDK tools.

Basic Tools

These tools are the foundation of the JDK. They are the tools you use to create and build applications.

Tool Name	Brief Description	
javac	The compiler for the Java programming language.	
java	The launcher for Java applications. In this release, a single launcher is used both for development and deployment. The old deployment launcher, **jre**, is no longer provided.	
javadoc	API documentation generator. See Javadoc Tool page for doclet and taglet APIs.	
apt	Annotation processing tool. See Annotation Processing Tool for program annotation processing.	
appletviewer	Run and debug applets without a web browser.	[] [Windows]
jar	Create and manage Java Archive (JAR) files. See Java Archive Files page for the JAR specification.	[Solaris and Linux] [Windows]
jdb	The Java Debugger. See JPDA for the debugger architecture specifications.	[Solaris and Linux] [Windows]
javah	C header and stub generator. Used to write native methods.	[Solaris and Linux] [Windows]
javap	Class file disassembler	[Solaris and Linux] [Windows]
extcheck	Utility to detect Jar conflicts.	[Solaris and Linux] [Windows]

Security Tools

These security tools help you set security policies on your system and create apps that can work within the scope of security policies set at remote sites.

Tool Name	Brief Description	Links to Reference Pages
keytool	Manage keystores and certificates.	[Solaris and Linux] [Windows]
jarsigner	Generate and verify JAR signatures.	[Solaris and Linux] [Windows]
policytool	GUI tool for managing policy files.	[Solaris and Linux] [Windows]

These security tools help you obtain, list, and manage Kerberos tickets.

Tool Name	Brief Description	Links to Reference Pages

kinit	Tool for obtaining Kerberos v5 tickets. Equivalent functionality is available on the Solaris operating environment via the kinit tool. For example, for Solaris 8, see the kinit reference page.	[Linux] [Windows]
klist	Command-line tool to list entries in credential cache and key tab. Equivalent functionality is available on the Solaris operating environment via the klist tool. For example, for Solaris 8, see the klist reference page.	[Linux] [Windows]
ktab	Command-line tool to help the user manage entires in the key table. Equivalent functionality is available on the Solaris operating environment via the kadmin tool. For example, for Solaris 8, see the kadmin reference page.	[Linux] [Windows]

Internationalization Tools

This tool helps to create localizable apps.

Tool Name	Brief Description	Links to Reference Pages
native2ascii	Convert text to Unicode Latin-1.	[Solaris and Linux] [Windows]

Remote Method Invocation (RMI) Tools

These tools help to create apps that interact over the Web or other network.

Tool Name	Brief Description	Links to Reference Pages
rmic	Generate stubs and skeletons for remote objects.	[Solaris and Linux] [Windows]
rmiregistry	Remote object registry service.	[Solaris and Linux] [Windows]
rmid	RMI activation system daemon.	[Solaris and Linux] [Windows]
serialver	Return class serialVersionUID.	[Solaris and Linux] [Windows]

Java IDL and RMI-IIOP Tools

These tools are used when creating applications that use OMG-standard IDL and CORBA/IIOP.

Tool Name	Brief Description
tnameserv	Provides access to the naming service.
idlj	Generates .java files that map an OMG IDL interface and enable an application written in the Java programming language to use CORBA functionality.

orbd	Provides support for clients to transparently locate and invoke persistent objects on servers in the CORBA environment. ORBD is used instead of the Transient Naming Service, `tnameserv`. ORBD includes both a Transient Naming Service and a Persistent Naming Service. The **orbd** tool incorporates the functionality of a Server Manager, an Interoperable Naming Service, and a Bootstrap Name Server. When used in conjunction with the `servertool`, the Server Manager locates, registers, and activates a server when a client wants to access the server.
servertool	Provides ease-of-use interface for the application programmers to register, unregister, startup, and shutdown a server.

Java Deployment Tools

Utilities for use in conjunction with deployment of java applications and applets on the web.

Tool Name	Brief Description
pack200	Transforms a JAR file into a compressed `pack200` file using the Java `gzip` compressor. The compressed packed files are highly compressed JARs, which can be directly deployed, saving bandwidth and reducing download time.
unpack200	Transforms a packed file produced by `pack200` into a JAR file.

Java Plug-in Tools

Utilities for use in conjunction with the Java Plug-in.

Tool Name	Brief Description with Links to Reference Pages
htmlconverter	Converts an HTML page (file) containing applets to the `OBJECT` / `EMBED` tag format for Java Plug-in.

Java Web Start Tools

Utilities for use in conjunction with the Java Web Start.

Tool Name	Brief Description
javaws	Command line tool for launching Java Web Start and setting various options. See Java Web Start Guide for more information.

Monitoring and Management Tools

You can use the following tools to monitor JVM performance and resource consumption. The tools described in this section are unsupported and **experimental**, and should be used with that in mind. They may not be available in future JDK versions.

Platform support:

- jconsole: all platforms.
- jps, jstat, and jstatd: all platforms except Windows 98 and Windows ME.

For more information, see Monitoring and Management for the Java Platform.

Tool Name	Brief Description
jconsole	**Experimental**: Java Monitoring and Management Console - JMX-compliant graphical tool for monitoring a Java virtual machine. It can monitor both local and remote JVMs.
jps	**Experimental**: JVM Process Status Tool - Lists instrumented HotSpot Java virtual machines on a target system.
jstat	**Experimental**: JVM Statistics Monitoring Tool - Attaches to an instrumented HotSpot Java virtual machine and collects and logs performance statistics as specified by the command line options.
jstatd	**Experimental**: JVM jstat Daemon - Launches an RMI server application that monitors for the creation and termination of instrumented HotSpot Java virtual machines and provides a interface to allow remote monitoring tools to attach to Java virtual machines running on the local system.

Troubleshooting Tools

The following tools can be used for specific troubleshooting tasks. The tools described in this section are unsupported and **experimental** in nature and should be used with that in mind. They may not be available in future JDK versions.
These tools are **not currently available on Windows platforms**.

Tool Name	Brief Description
jinfo	**Experimental** - Configuration Info for Java - Prints configuration information for for a given process or core file or a remote debug server.
jmap	**Experimental** - Memory Map for Java - Prints shared object memory maps or heap memory details of a given process or core file or a remote debug server.
jsadebugd	**Experimental** - Serviceability Agent Debug Daemon for Java - Attaches to a process or core file and acts as a debug server.
jstack	**Experimental** - Stack Trace for Java - Prints a stack trace of threads for a given process or core file or remote debug server.

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