

Java® Platform, Standard Edition & Java Development Kit

Version 18 API Specification

This document is divided into two sections:

Java SE

The Java Platform, Standard Edition (Java SE) APIs define the core Java platform for general-purpose computing. These APIs are in modules whose names start with `java`.

JDK

The Java Development Kit (JDK) APIs are specific to the JDK and will not necessarily be available in all implementations of the Java SE Platform. These APIs are in modules whose names start with `jdk`.

All Modules	Java SE	JDK	Other Modules
Module	Description		
<code>java.base</code>	Defines the foundational APIs of the Java SE Platform.		
<code>java.compiler</code>	Defines the Language Model, Annotation Processing, and Java Compiler APIs.		
<code>java.datatransfer</code>	Defines the API for transferring data between and within applications.		
<code>java.desktop</code>	Defines the AWT and Swing user interface toolkits, plus APIs for accessibility, audio, imaging, printing, and JavaBeans.		
<code>java.instrument</code>	Defines services that allow agents to instrument programs running on the JVM.		
<code>java.logging</code>	Defines the Java Logging API.		
<code>java.management</code>	Defines the Java Management Extensions (JMX) API.		
<code>java.management.rmi</code>	Defines the RMI connector for the Java Management Extensions (JMX) Remote API.		
<code>java.naming</code>	Defines the Java Naming and Directory Interface (JNDI) API.		
<code>java.net.http</code>	Defines the HTTP Client and WebSocket APIs.		
<code>java.prefs</code>	Defines the Preferences API.		
<code>java.rmi</code>	Defines the Remote Method Invocation (RMI) API.		
<code>java.scripting</code>	Defines the Scripting API.		
<code>java.se</code>	Defines the API of the Java SE Platform.		
<code>java.security.jgss</code>	Defines the Java binding of the IETF Generic Security Services API (GSS-API).		
<code>java.security.sasl</code>	Defines Java support for the IETF Simple Authentication and Security Layer (SASL).		
<code>java.smartcardio</code>	Defines the Java Smart Card I/O API.		
<code>java.sql</code>	Defines the JDBC API.		
<code>java.sql.rowset</code>	Defines the JDBC RowSet API.		
<code>java.transaction.xa</code>	Defines an API for supporting distributed transactions in JDBC.		
<code>java.xml</code>	Defines the Java API for XML Processing (JAXP), the Streaming API for XML (StAX), the Simple API for XML (SAX), and the W3C Document Object Model (DOM) API.		
<code>java.xml.crypto</code>	Defines the API for XML cryptography.		
<code>jdk.accessibility</code>	Defines JDK utility classes used by implementors of Assistive Technologies.		
<code>jdk.attach</code>	Defines the attach API.		
<code>jdk.charsets</code>	Provides charsets that are not in <code>java.base</code> (mostly double byte and IBM charsets).		
<code>jdk.compiler</code>	Defines the implementation of the system Java compiler and its command line equivalent, <i>javac</i> .		
<code>jdk.crypto.cryptoki</code>	Provides the implementation of the SunPKCS11 security provider.		
<code>jdk.crypto.ec</code>	Provides the implementation of the SunEC security provider.		
<code>jdk.dynalink</code>	Defines the API for dynamic linking of high-level operations on objects.		
<code>jdk.editpad</code>	Provides the implementation of the edit pad service used by <code>jdk.jshell</code> .		
<code>jdk.hotspot.agent</code>	Defines the implementation of the HotSpot Serviceability Agent.		
<code>jdk.httpserver</code>	Defines the JDK-specific HTTP server API, and provides the <code>jwebserver</code> tool for running a minimal HTTP server.		
<code>jdk.incubator.foreign</code>	Defines an API for accessing foreign memory and calling foreign functions, directly from Java.		
<code>jdk.incubator.vector</code>	Defines an API for expressing computations that can be reliably compiled at runtime into SIMD instructions, such as AVX instructions on x64, and NEON instructions on AArch64.		
<code>jdk.jartool</code>	Defines tools for manipulating Java Archive (JAR) files, including the <i>jar</i> and <i>jarsigner</i> tools.		

jdk.javadoc	Defines the implementation of the system documentation tool and its command-line equivalent, <i>javadoc</i> .
jdk.jcmd	Defines tools for diagnostics and troubleshooting a JVM such as the <i>jcmd</i> , <i>jps</i> , <i>jstat</i> tools.
jdk.jconsole	Defines the JMX graphical tool, <i>jconsole</i> , for monitoring and managing a running application.
jdk.jdeps	Defines tools for analysing dependencies in Java libraries and programs, including the <i>jdeps</i> , <i>javap</i> , and <i>jdeprscan</i> tools.
jdk.jdi	Defines the Java Debug Interface.
jdk.jdwp.agent	Provides the implementation of the Java Debug Wire Protocol (JDWP) agent.
jdk.jfr	Defines the API for JDK Flight Recorder.
jdk.jlink	Defines the <i>jlink</i> tool for creating run-time images, the <i>jmod</i> tool for creating and manipulating JMOD files, and the <i>jimage</i> tool for inspecting the JDK implementation-specific container file for classes and resources.
jdk.jpackage	Defines the Java Packaging tool, jpackage.
jdk.jshell	Provides the <i>jshell</i> tool for evaluating snippets of Java code, and defines a JDK-specific API for modeling and executing snippets.
jdk.jsobject	Defines the API for the JavaScript Object.
jdk.jstatd	Defines the <i>jstatd</i> tool for starting a daemon for the jstat tool to monitor JVM statistics remotely.
jdk.localedata	Provides the locale data for locales other than US locale .
jdk.management	Defines JDK-specific management interfaces for the JVM.
jdk.management.agent	Defines the JMX management agent.
jdk.management.jfr	Defines the Management Interface for JDK Flight Recorder.
jdk.naming.dns	Provides the implementation of the DNS Java Naming provider.
jdk.naming.rmi	Provides the implementation of the RMI Java Naming provider.
jdk.net	Defines the JDK-specific Networking API.
jdk.nio.mapmode	Defines JDK-specific file mapping modes.
jdk.sctp	Defines the JDK-specific API for SCTP.
jdk.security.auth	Provides implementations of the <code>javax.security.auth.*</code> interfaces and various authentication modules.
jdk.security.jgss	Defines JDK extensions to the GSS-API and an implementation of the SASL GSSAPI mechanism.
jdk.xml.dom	Defines the subset of the W3C Document Object Model (DOM) API that is not part of the Java SE API.
jdk.zipfs	Provides the implementation of the Zip file system provider.

[Report a bug or suggest an enhancement](#)

For further API reference and developer documentation see the [Java SE Documentation](#), which contains more detailed, developer-targeted descriptions with conceptual overviews, definitions of terms, workarounds, and working code examples. [Other versions](#).

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