



IBM Software Group

IBM® SDK Java™ Technology Edition, V6

Installation



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This presentation describes how to install the IBM SDK Java Technology Edition, Version 6.

Agenda

- Supported platforms
- Product packaging and installation

The first section of the presentation will cover which operating systems and hardware configurations are supported with the IBM SDK for Java Version 6. The second section will explain how the SDK for Java product is packaged on different platforms and how to install it.

Section

Supported platforms

This section of the presentation will describe the operating system and hardware configurations that are supported with the IBM SDK for Java Version 6.

Supported platforms

- The IBM SDK, Java Technology Edition, Version 6, is available as a no-charge product for
 - ▶ AIX®, 32-bit and 64-bit
 - ▶ Linux®, 32-bit and 64-bit
 - ▶ z/OS®, 31-bit and 64-bit
- An SDK for Windows® platforms will be available as a part of the IBM Eclipse package
 - ▶ Not currently available for Version 6
- The IBM developer kits page provides links to the SDK download packages
 - ▶ <http://www.ibm.com/developerworks/java/jdk/index.html>



The IBM SDK, Java Technology Edition, Version 6, is a no-charge product. It is currently available for AIX, Linux – including Linux on POWER™ and Linux on System z™, and for z/OS. You can find information about the SDK packages, including links to product downloads and documentation, on the IBM developer kits Web page. The Windows SDK is shipped as a part of the IBM Eclipse package. This package will be available at a later time. The following slides provide details on supported configurations for AIX, Linux, and z/OS.

Supported platforms: AIX® details

	Java 6 32-bit	Java 6 64-bit
Minimum AIX level supported – 5.2	Not supported	Not supported
Minimum AIX level supported – 5.3	5300-007	5300-007
Minimum AIX level supported – 6.1	6100-GOLD	6100-GOLD
Filesets	Java6.*	Java6_64.*
Install directory	/usr/java6	/usr/java6_64
Web Start support	Yes	Yes
Plug-in support	Yes	Yes

Supported AIX levels:

<http://www.ibm.com/developerworks/java/jdk/aix/service.html>



IBM provides a 32-bit SDK and a 64-bit SDK for AIX. The SDK is available for AIX 5.3 and AIX 6.1, but is not supported on AIX 5.2. You can find the most up-to-date supported operating system levels on the AIX service page.

Supported platforms: Linux details

Hardware	IA32 32-bit		AMD64 / EM64T 64-bit		POWER 64-bit	
	32-bit	32-bit	64-bit	32-bit	64-bit	
SLES 9	X	X	X	X	X	
Novell Linux Desktop 9	X					
SLES 10 / SLED 10	X	X	X	X	X	
Red Hat EL 4	X	X	X	X	X	
Red Hat EL 5	X	X	X	X	X	

Tested platforms and distributions:

<http://www.ibm.com/developerworks/java/jdk/linux/tested.html>



IBM provides six builds of the SDK for Linux platforms running on different hardware architectures – 32-bit Intel® architecture, AMD64 and EM64T processors, 64-bit POWER processors. Configurations for Linux on System z are shown on the next slide. Most hardware configurations have been tested with SUSE and Red Hat Linux distributions. For the most current information on the operating system platforms and Linux distributions that have been tested, refer to the Tested platforms and distributions page. Customers who obtain the IBM SDK for Java by purchasing an IBM product – for example, WebSphere Application Server – can obtain support through the product's support team. When obtained as free a download or with a Linux distribution, the IBM SDK has no support unless such support is purchased as part of a chargeable support offering. Periodic updates incorporating fixes may be made available as deemed appropriate by IBM.

Supported platforms: More Linux details

Hardware	System z 31-bit		System z 64-bit	
	31-bit	31-bit	31-bit	64-bit
SLES 9	X	X	X	X
Novell Linux Desktop 9				
SLES 10 / SLED 10	X	X	X	X
Red Hat EL 4	X	X	X	X
Red Hat EL 5	X	X	X	X

Tested platforms and distributions:

<http://www.ibm.com/developerworks/java/jdk/linux/tested.html>



There are two SDK packages for Linux on System z – a 64-bit package and a 31-bit package that can run on 31-bit hardware or 64-bit hardware. Again, you should always consult the tested platforms page to determine the most up-to-date levels of hardware and operating systems that IBM will support.

Linux software prerequisites

- The SDK depends on shared libraries that are not installed by default for Red Hat Enterprise Linux (RHEL)
 - ▶ In RHEL 4, the RPMs that contain these libraries are:
 - `compat-libstdc++-33-3.2.3` and `xorg-x11-deprecated-libs-6.8.1` (platforms other than System z™)
 - `compat-libstdc++-295-2.95.3` and `xorg-x11-deprecated-libs-6.8.1` (System z)
 - ▶ In RHEL 5, the RPMs that contain these libraries are:
 - `compat-libstdc++-33-3.2.3` (platforms other than System z™)
 - `compat-libstdc++-296-2.95.3` (System z)
- IBM User Guide for Java 6 on Linux
<http://www.ibm.com/developerworks/java/jdk/linux/6/sdkandruntimeguide.lnx.html>



The IBM SDK for Java depends on shared libraries that are not installed by default for Red Hat Enterprise Linux. The exact libraries that are required for RHEL 4 and RHEL 5 are shown above. You can also find instructions for configuring Red Hat Enterprise Linux to include the required libraries during installation in the IBM User Guide for Java 6 on Linux.

Supported platforms: z/OS details

- The 31-bit SDK and 64-bit SDK for Java on z/OS have the same hardware and software prerequisites
- These products run on these IBM System z servers:
 - ▶ z9 BC
 - ▶ z9 EC
 - ▶ z990
 - ▶ z890
 - ▶ z900
 - ▶ z800
- These products also require z/OS V1.7 (5694-A01) or z/OS.e V1.7 (5655-G52), or later

The 31-bit SDK and 64-bit SDK for Java on z/OS have the same hardware and software prerequisites. The SDK for Java Version 6 will run on the System z servers shown on the slide. These products also require z/OS V1.7 or z/OS.e V1.7, or later. The Version 6 SDK is independent of the previous Version 5.0 and Version 1.4.2 SDK offerings, and those products can coexist on the same system.

Section

Product packaging and installation

The next section of this presentation will discuss product packaging and installation procedures for the IBM SDK Java Technology Edition, Version 6.

Packaging and installation for AIX

- The IBM SDK for AIX, Version 6, consists of several installp image files
 - ▶ Each image file contains related filesets
 - ▶ Install the packages using smit, smitty system management tools or the installp command
- The base SDK package is required

	32-bit SDK	64-bit SDK	Description
Required package	Java6.sdk	Java6_64.sdk	Base SDK, license, dt.jar
Optional packages	Java6.ext	Java6_64.ext	Comm API
	Java6.samples	Java6_64.samples	Demos
	Java6.source	Java6_64.source	src.jar
	Java6.msg.\$LANG	Java6_64.msg.\$LANG	Localized messages

The SDK for AIX is made up of several installp image files; each image file contains related filesets. The filesets for the 32-bit SDK are named with the string Java6, and the filesets for the 64-bit SDK are named with the string Java6_64. The packages can be installed using system management tools or the installp command. The base SDK package is required – it contains the core functionality for building and deploying Java applications, the product license, and related JAR files. Additional optional packages are available, include technology samples, source libraries for debugging, and supplemental APIs and messages.

Packaging and installation for Linux

- Linux installation packages are available in RPM and .tgz file format
 - RPM file installation command: `rpm -ivh <RPM file>`
 - .tgz file installation command: `tar -zxf <.tgz file>`
- IBM provides SDK packages for six architectures

Architecture designation	Description
i386	IA 32-bit (Intel compatible)
x86_64	AMD64 / EM64T 64-bit
ppc	POWER 32-bit
ppc64	POWER 64-bit
s390	System z, 31-bit
s390x	System z, 64-bit

IBM provides six varieties of Linux installation packages. The directory structure of the SDK package, including the file names of the installation packages and the default installation directory, will depend on the target hardware architecture of the SDK package. The Linux installation packages are available as RPM files and in .tgz file format.

Packaging and installation for z/OS

- The SDK product will be distributed as follows
 - ▶ From the IBM System z Java Web site
 - ▶ On tape from IBM Software Delivery and Fulfillment (SDF)
- Details on how to order, download, install, and verify the SDK on z/OS are available here
 - ▶ <http://www.ibm.com/servers/eserver/zseries/software/java/>



The IBM SDK for z/OS, Java Technology Edition, Version 6, is available in 31-bit and 64-bit versions. These are no-charge products, and they will be available for download from the IBM System z Java Web site and on tape from IBM Software Delivery and Fulfillment. Up-to-date information on how to order, download, install, and verify the SDK for Java on z/OS is also available on the System z Java Web site.

Documentation

- IBM User Guides for Java 6 provide information on how to install and configure the SDK
 - ▶ Compatibility concerns
 - ▶ Developing and running Java applications
- The Diagnostics Guide offers more detailed information about the IBM Virtual Machine for Java
 - ▶ Components of the IBM SDK for Java, such as the virtual machine, garbage collector, just-in-time compiler, and shared class cache
 - ▶ Problem determination steps, organized by platform
 - ▶ Instructions for using diagnostic tools
- Some SDK packages contain a documentation launchpad
 - ▶ Integrated interface for accessing all Java 6 documentation
 - ▶ Release notes, User Guides, API documentation, Diagnostics Guide

There are multiple documentation resources available to help you be successful with the IBM SDK for Java, Version 6. The User Guides are platform specific and include information on installing, configuring, and verifying the Java product; addressing compatibility concerns; developing and running Java applications; and using JVM components that are unique to the IBM runtime environment for Java. The Diagnostics Guide includes more in-depth information on the architecture of the runtime environment and explains how to troubleshoot problems with your Java applications, including instructions for using diagnostic tools and the types of information you need to gather for IBM service. On some platforms, the SDK package includes a graphical documentation launchpad. The launchpad is a documentation workbench that provides references and links to User Guides, the Diagnostics Guide, and API documentation.

Section

Summary and references

This section contains a summary and references.

Summary

- The IBM SDK, Java Technology Edition, Version 6, is available on AIX, Linux, and z/OS
- Online documentation provides current supported platform information
- Detailed installation and configuration instructions are available in the platform specific User Guides

The IBM SDK, Java Technology Edition, Version 6, is available on AIX, Linux, and z/OS. The IBM developer kits page and product service pages provide the most recent information on supported platforms and required fixes. You should always verify that you are running with a supported system configuration before deploying Java applications or reporting problems to IBM service. Consult the User Guides for detailed instructions on how to install, configure, and verify the IBM SDK.

References

- IBM developer kits
 - ▶ <http://www.ibm.com/developerworks/java/jdk/index.html>
- Linux tested platforms and distributions
 - ▶ <http://www.ibm.com/developerworks/java/jdk/linux/tested.html>
- IBM System z Java Web site
 - ▶ <http://www.ibm.com/servers/eserver/zseries/software/java/>
- Online information center (User Guides, Diagnostics Guide)
 - ▶ <http://publib.boulder.ibm.com/infocenter/javasdk/v6r0/index.jsp>

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