



BEA WebLogic JRocket™ 7.0 SDK

Installation and Migration Guide

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1 Introduction

This document explains how to install BEA WebLogic JRockit 7.0 SDK on supported platforms and how to switch from other JVMs to WebLogic JRockit 7.0 JVM.

Java 2 Standard Edition™ (J2SE™) Compatibility

WebLogic JRockit 7.0 JVM is certified by Sun Microsystems, Inc. to be compatible with Java 2 Standard Edition (J2SE), versions 1.3.1.

The JRE class files that are distributed with WebLogic JRockit 7.0 SDK come directly from Sun except for a small number, which are tightly coupled to the JVM and are therefore overridden in this version of WebLogic JRockit. The class files that are overridden are in the `java.lang`, `java.io`, `java.net` and `java.util` packages. There are no omitted classes.

1 *Introduction*

2 Installation

This chapter documents how to install WebLogic JRockit 7.0 SDK as a standalone product. It includes information on the following subjects:

- [Supported Platforms](#)
- [Installing on Windows 2000](#)
- [Installing on Red Hat Linux AS](#)
- [Special Note About Root Access](#)

Supported Platforms

For a complete list of supported platforms, please see [Hardware and Operating System Requirements](#) in the BEA WebLogic JRockit 7.0 SDK [User Guide](#).

Installing on Windows 2000

This section explains how to install WebLogic JRockit 7.0 SDK for Windows 2000:

1. Double-click on the WebLogic JRockit 7.0 SDK installation program, and follow the directions on the screen.
2. Add the WebLogic JRockit bin directory to the path environment variable or use the full path to the `java.exe` executable.

To uninstall WebLogic JRockit 7.0 SDK, use the Add/Remove Programs option in the control panel. If you added WebLogic JRockit 7.0 SDK to your path, remember to remove it again.

Installing on Red Hat Linux AS

For Red Hat Linux AS the only supported versions of `kernel`, `glibc` and `pthread`s are the ones that ship as the defaults with RH AS 2.1. This section describes the installation procedures for WebLogic JRockit 7.0 SDK for Red Hat Linux using the RPM package (recommended).

1. If you do not have root access already, become root by running the `su` command and entering the super-user password.
2. Run the `rpm` command to install the packages:

```
rpm -ivh jrockit-j2se1.3.1-7.0.5-1.i686.rpm
```

This will install WebLogic JRockit 7.0 SDK to the directory `/opt/bean`.

Note: While `/opt/bean` remains the default directory for WebLogic JRockit 7.0 SDK, you can relocate it if you want to use the extra RPM installer options to override it at installation, as described in [Overriding the Default Installation Path with RPM](#).

3. Exit the root shell.

Note: These instructions also work for the RPM downloadable from BEA which has the generic name `jrockit<version>.rpm`.

Overriding the Default Installation Path with RPM

You can relocate WebLogic JRockit RPMs from the default directory (`/opt/bean/jrockit70sp5_131_10`; [Listing 1](#)) to a directory you specify. If you want to override the default installation path for WebLogic JRockit 7.0 SP5 (`/opt/bean/jrockit70sp5_131_10`), you must add the arguments `--prefix`

/mydir1/mydir2 as shown in [Listing 2](#) (these examples show the Linux 32-bit version of the install files for WebLogic JRockit 7.0 SP5).

Listing 1 Example of Default Install

```
$ rpm -ivh jrockit-j2se1.3.1-7.0.5-1.i686.rpm
...
$ /opt/bean/jrockit70sp5_131_10/bin/java -version
...
```

Listing 2 Example of Relocated Install

```
$ rpm -ivh --prefix /mydir1/mydir2 jrockit-j2se1.3.1-7.0.5-1.i686.rpm
...
$ /mydir1/mydir2/bin/java -version
...
```

For example, to install in the directory /usr/jrockit/7.0/1.3.1, just add --prefix /usr/jrockit/7.0/1.3.1.

Installation Using the .tar file

1. Change directory to the one in which you want to install WebLogic JRockit 7.0 SDK.
2. Uncompress the file entering the command:

```
tar -zxvf jrockit<version>.tar.gz
```

Special Note About Root Access

If you choose to install the WebLogic JRockit 7.0 JVM into a system-wide location such as `/usr/local`, you must first become the root in order to gain the necessary permissions. If you do not have root access, simply install the WebLogic JRockit 7.0 JVM Java 2 Runtime Environment into your home directory, or a subdirectory that you have permission to write to.

3 Migration

This section describes the procedures for migrating to WebLogic JRockit 7.0 SDK. It contains information on the following subjects:

- [Running Java™ Programs with WebLogic JRockit 7.0 JVM](#)
- [Replacing the Sun JRE](#)
- [Known Problems When Switching Virtual Machines](#)
- [Using WebLogic JRockit 7.0 JVM with WebLogic Server](#)

Running Java™ Programs with WebLogic JRockit 7.0 JVM

You can make WebLogic JRockit 7.0 JVM the default VM for your system. To do this, add the full path of the WebLogic JRockit 7.0 JVM bin directory to your path variable before the path to any other VM.

If you want to run WebLogic JRockit 7.0 JVM without making it the system default you can always use the full path to the java executable when starting a Java program.

Replacing the Sun JRE

As previously stated WebLogic JRockit 7.0 JVM is certified as compatible with J2SE 1.3.1. This means that any Java program that runs using the Sun JRE for J2SE 1.3.1 will run using the corresponding version of WebLogic JRockit 7.0 JVM.

Differences in Command Line Options

The standard command line options available for WebLogic JRockit 7.0 JVM are the same as the Sun JRE for J2SE 1.3.1, with one exception: the option for selecting WebLogic JRockit 7.0 JVM is restricted to `-jrockit`, which is also the default value.

The non standard options (`-x` options) for WebLogic JRockit 7.0 JVM are in most cases not the same as the non standard options in the Sun JRE due to differences in design and configurability. Please refer to the [BEA WebLogic JRockit 7.0 SDK User Guide](#) for a description of the non-standard options.

Known Problems When Switching Virtual Machines

- On Windows some programs set the system default VM by copying a `java.exe` file to `C:\WINNT\system32`. If this happens and this path occurs before the path to WebLogic JRockit 7.0 JVM in your path variable this may cause you to run a different VM than expected.
- Since the command line options (choice of VM and non-standard options) differ from other VMs, remember to change all your start-up scripts accordingly to avoid unexpected errors.

Using WebLogic JRockit 7.0 JVM with WebLogic Server

WebLogic JRockit 7.0 JVM is certified for use with WebLogic Server. For details on exact versions, please see:

- <http://www.bea.com/products/weblogic/server/>
- <http://www.bea.com/products/weblogic/jrockit/>

This section describes how easy it is to use these two products together.

Running WebLogic JRockit 7.0 JVM with Thin Threads

Warning: Thin threads is experimental functionality in this version of JRockit, and is not recommended for general use. This feature is subject to change without notice.

The WebLogic JRockit 7.0 JVM high performance thread system (thin threads, `-xthinthreads`) and the native I/O system of WebLogic Server are incompatible as they both use asynchronous I/O. To avoid problems the native I/O system of WebLogic Server must therefore be disabled when running WebLogic JRockit 7.0 JVM using thin threads. The native I/O is disabled automatically in WebLogic Server 7.0 SP1 and higher if WebLogic JRockit 7.0 JVM is using thin threads, even if it is turned on in the corresponding WebLogic Server configuration file. In their respective default setups WebLogic JRockit 7.0 JVM does not use thin threads and WebLogic Server uses native I/O.

Switching the Virtual Machine in WebLogic Server

To switch the virtual machine in WebLogic Server, do the following:

1. Open the `WL_HOME\server\bin\startWLS.cmd` file (Windows) or `WL_HOME/server/bin/startWLS.sh` (Linux) with any text editor.

2. Edit the line `set JAVA_HOME=` (`JAVA_HOME=` in Linux) to point to your WebLogic JRockit 7.0 JVM directory.
3. Remove the text `%JAVA_VM%` (`$JAVA_VM` in Linux) in the line near the end of the file.
4. Save and run as usual.

When WebLogic Server is Running as a Service

To switch the virtual machine when WebLogic Server is running as a service, do the following:

1. Stop the service.
2. Start `regedit` and find the service keys corresponding to your service
`(HKEY_LOCAL_MACHINE/SYSTEM/ControlSet001/Services/{ServiceName})`.
3. In the Parameters folder, change the value of the key `JavaHome` from the default VM to your WebLogic JRockit 7.0 JVM directory.
4. Here you can also alter the arguments sent to WebLogic JRockit 7.0 JVM by editing the values of the key `CmdLine`.
5. Restart the service.