Java Platform, Standard Edition

MSI Enterprise JRE Installer Guide

Release 8 for Windows

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Java Platform, Standard Edition MSI Enterprise JRE Installer Guide, Release 8 for Windows

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Contents

Preface

This guide describes how system administrators use the Microsoft Windows Installer (MSI) Enterprise JRE Installer to install and uninstall the Java Runtime Environment (JRE) across an enterprise without requiring end user interaction.

> **Note:**
>
> The MSI Enterprise JRE Installer is available as part of Oracle Java SE Subscription and other legacy products (such as Oracle Java SE Advanced or Oracle Java SE Suite), and is only available to customers for download through My Oracle Support (MOS).

Audience

This document is intended for administrators who have licenses for Java SE Advanced or Java SE Suite and need to install the JRE for Microsoft Windows across their enterprises.

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Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of

these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Documents

For more information about installing Java SE 8, see:

- JDK 8 and JRE 8 Installation Start Here in *Java Platform, Standard Edition Installation Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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Use the MSI Enterprise JRE Installer to Install the JRE

You can use the Microsoft Windows Installer (MSI) Enterprise JRE Installer to install and uninstall the Java Runtime Environment (JRE) for Windows.

> **Note:**
>
> The MSI Enterprise JRE Installer is available as part of Oracle Java SE Subscription and other legacy products (such as Oracle Java SE Advanced or Oracle Java SE Suite), and is only available to customers for download through My Oracle Support (MOS).

The Microsoft Windows Installer (MSI) Enterprise JRE Installer enables you to install the JRE across your enterprise. Because it fully supports Windows Installer 3.0, it is fully compatible with system management software, such as Systems Management Server (SMS) and Systems Center Configuration Manager (SCCM). These software management suites enable you to securely deploy software across your enterprise. In addition to the features and options that you can specify with the MSI Enterprise JRE Installer, you can specify a Java Usage Tracker configuration file and a deployment rule set.

This section includes the following topics:

System Requirements

Before installing the JRE, verify that your system meets the minimum system requirements.

See Windows System Requirements for JDK and JRE in the *Java Platform, Standard Edition Installation Guide* for minimum processor, disk space, and memory requirements.

If you have any difficulties, see General Java Troubleshooting in the *Java Platform, Standard Edition Troubleshooting Guide* or submit a bug report at http://bugreport.java.com/bugreport/.

Installing the JRE from the MSI Enterprise Installer

You can install JRE 8 by downloading and running the appropriate Oracle JRE 8 MSI Enterprise Installer for your system. The JRE 8 MSI Enterprise Installer is packaged as a "pure" `.msi` installer and runs with minimal dialogs. It supports silent installation of the JRE, and is customizable using command line parameters, a parameter file, or by using third party MSI customization tools.

You must have administrative permissions in order to install JRE 8.

1. Download the required version of the MSI Enterprise JRE Installer from Supported Java SE Downloads on MOS (Doc ID 1439822.1) on My Oracle Support.
    a. Click the patch number of the MSI installer update that you need. For example, 32991008 is the patch number of the Oracle JRE 8 Update 291 b35 Enterprise Installer.

       In the **Details** table, the updates are grouped by major version (for example, 8 or 11) with the most recent updates appearing at the top of the list.

    b. The **Patches & Updates** tab opens and contains the patch number, product name, and additional details about the patch. Before downloading the patch, verify that this is the version of the MSI Enterprise JRE Installer that you need.

    c. In the **Platform** drop-down list, select your operating system and then click the **Download** button.

    d. A new dialog box appears that contains the download link to the `.zip` file. Click the link and choose **Save As** from the pop-up menu to begin the download of the file to the directory of your choice.
2. Extract the contents of the the `.zip` file and double click the `.msi` file to run the installer.
    - Run the installer with administrative permissions under the supported Windows Installer environments.
    - The installer notifies you if Java content is disabled in web browsers and provides instructions for enabling it. If you previously hid some of the security prompts for applets and Java Web Start applications, then the installer provides an option for restoring the prompts.
    - When the JRE is installed on your system, Java Access Bridge is disabled by default. See Enabling and Testing Java Access Bridge on Microsoft Windows in the *Java Accessibility Guide* for instructions required to enable the Java Access Bridge.
3. After you complete the installation of the JRE, you can delete the MSI installer file to recover disk space.

After installation is complete, you can use the **Java** item in the Windows **Start** menu to access essential Java information and functions, the help, the Java Control Panel, and to check for updates.

Installing the JRE from the Command Line

You can install the JRE by downloading the appropriate Oracle JRE MSI Enterprise Installer for your system and running it from the command line.

1. Download the required version of the MSI Enterprise JRE Installer from Supported Java SE Downloads on MOS (Doc ID 1439822.1) on My Oracle Support.
   a. Click the patch number of the MSI installer update that you need. For example, 32991008 is the patch number of the Oracle JRE 8 Update 291 b35 Enterprise Installer.

      In the **Details** table, the updates are grouped by major version (for example, 8 or 11) with the most recent updates appearing at the top of the list.
   b. The **Patches & Updates** tab opens and contains the patch number, product name, and additional details about the patch. Before downloading the patch, verify that this is the version of the MSI Enterprise JRE Installer that you need.
   c. In the **Platform** drop-down list, select your operating system and then click the **Download** button.
   d. A new dialog box appears that contains the download link to the `.zip` file. Click the link and choose **Save As** from the pop-up menu to begin the download of the file to the directory of your choice.
2. Extract the contents of the the `.zip` file and open an MS-DOS prompt with Administrative permissions.
3. Run one of the following commands depending on the type of installation that you want to perform:
   - Basic UI mode:

     ```
     msiexec.exe /i installer.msi [INSTALLCFG=configuration_file_path]
     [options] /qb
     ```

   - Silent or unattended mode:

     ```
     msiexec.exe /i installer.msi [INSTALLCFG=configuration_file_path]
     [options] /qn
     ```

   The following items describe the variables used in these commands:
   - *`installer.msi`*: The name of the MSI Enterprise JRE Installer that you obtained in the previous step.
   - *`configuration_file_path`*: The path of the installer configuration file. See Use an Installer Configuration File to Install the JRE.
   - *`options`*: Options with specified values, separated by spaces. Use the same options as listed in Installer Configuration File Options. You can also use standard Windows Installer options.

Creating a Log File

You can use a log file to verify that an installation succeeded.

To create a log file describing the installation, append `/L C:\`*`path`*`\setup.log` to the install command and scroll to the end of the log file to verify.

The following is an example of creating a log file:

```
msiexec.exe /i installer.msi /qn /L C:\path\setup.log
```

This example causes the log to be written to the `C:\path\setup.log` file.

Performing a Static Installation of the JRE

You can perform a static installation of the JRE if you want to leave a JRE installed during a Java update.

To perform a static installation of the JRE, specify the command-line option or the configuration file option `STATIC=1`.

A later version of the same JRE family will be installed in a separate directory. This mode ensures that vendors, who require a specific version of the JRE for their product, can be certain that the JRE will not be overwritten by a newer version.

The default installation directory of a static JRE is `C:\Program Files (x86)\Java\jre`*n* (for 32-bit versions) or `C:\Program Files\Java\jre`*n* (for 64-bit versions), where *n* was the full Java SE release and update number (for example, *n* = 18.0_20 for JRE release 8 update 20).

Uninstalling the JRE with Java Removal and Uninstall Tools

You can uninstall the JRE by using either the Java Removal Tool or the Java Uninstall tool.

- To uninstall the JRE with the Java Removal Tool, use the **Add/Remove Programs** utility in the Microsoft Windows Control Panel. The Java Removal Tool is integrated with the uninstallation process, and it will guide you through the removal of older JREs.
- To uninstall the JRE with the online Java Uninstall tool, go to `https://www.java.com/en/download/uninstallapplet.jsp`

  The Java Uninstall tool helps you improve your computer security by finding and uninstalling older versions of Java. The Uninstall tool shows you a list of the Java versions on your computer and then removes those that are out-of-date.

> **Note:**
>
> The Java Uninstall tool will not run if your system administrator specified a deployment rule set in your organization.
>
> The deployment rule set enables enterprises to directly manage their Java desktop environment and continue using legacy business applications in an environment of ever-tightening Java applet and Java Web Start application security policies. The deployment rule set enables administrators to specify rules for applets and Java Web Start applications. These rules might specify that a specific JRE version must be used. Consequently, the Java Uninstall tool will not run if it detects a deployment rule set that ensures required JREs are not uninstalled.
>
> See Deployment Rule Set in the *Java Platform, Standard Edition Deployment Guide*.

Uninstalling the JRE from the Command Line

You can uninstall the JRE from the command line.

Run the following command to uninstall the JRE:

```
msiexec /x {MSI product code of JRE}
```

In the command, use the MSI product code of the JRE version that you want to uninstall. In the following examples, the values that are in braces are the MSI product code of the JRE that you want to uninstall. The text in bold represents the JRE version that you want to uninstall.

Examples for JDK 8:

- The following command uninstalls the 32-bit JRE, version 1.8.0_25:

  ```
  msiexec /x {26A24AE4-039D-4CA4-87B4-2F832**18025**F0}
  ```

- The following command uninstalls the 64-bit JRE, version 1.8.0_25:

  ```
  msiexec /x {26A24AE4-039D-4CA4-87B4-2F864**18025**F0}
  ```

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Use an Installer Configuration File to Install the JRE

When installing the Java Runtime Environment (JRE) from the command line, you can use an installer configuration file to supplement the JDK command-line installation options.

> **Note:**
>
> The MSI Enterprise JRE Installer is available as part of Oracle Java SE Subscription and other legacy products (such as Oracle Java SE Advanced or Oracle Java SE Suite), and is only available to customers for download through My Oracle Support (MOS).

An installer configuration file is an alternative to and extension of options specified on the installer's command line. You can use this configuration file to standardize installations and to specify options that are not available on the command line.

This section includes the following topics:

- Installer Configuration File Options
- Example of an Installer Configuration File
- System Runtime Configuration File

Installer Configuration File Options

The following table lists all of the installer configuration file options.

> **Note:**
>
> You can substitute `Enable` for `1` and `Disable` for `0`.
>
> With the exception of AUTO_UPDATE and STATIC, you can use these options when running the MSI Enterprise JRE Installer from the command line. See Installing the JRE from the Command Line.

Table 2-1 Configuration File Options

Option	Values	Description
`AUTO_UPDATE=`	`Enable`, `Disable`	Enables the auto update feature. Default: `Enable` **Note:** This option is not available for the MSI Enterprise JRE Installer.
`DEPLOYMENT_RULE_SET=`	*`path`*	Specifies the path and file name of your organization's deployment rule set. See *Deployment Rule Set* in the *Java Platform, Standard Edition Deployment Guide*.
`EULA=`	`Enable`, `Disable`	If a Java applet or Java Web Start application is launched, then the user is prompted to accept the end-user license agreement (EULA). Default: `Disable`
`INSTALL_DIR=`	*`path`*	Folder or directory into which the files are installed. The default install directory for Java is: `%ProgramFiles%\Java\jre$version` For Windows, this only works for the first-time installation of a family. Linux and Solaris use operating system tools for this purpose and the installation directory relocation is handled by operating system tools. For example: `rpm --prefix=`*`path`*
`NOSTARTMENU=`	`Enable`, `Disable`	Specifies that the installer installs the JRE without setting up Java start-up items. Default: `Disable`

Table 2-1 (Cont.) Configuration File Options

Option	Values	Description
REMOVEOLDERJRES=	0, 1	Applicable to Enterprise MSI only. Enables uninstallation of all existing JREs on the system during JRE installation. The REMOVEOLDERJRES option does not remove static JRE installations. Using REMOVEOLDERJRES=0 leaves all Java versions on the system. Using REMOVEOLDERJRES=1 removes *all* existing non-statically installed Java versions from the system. For example, running `msiexec /i jre`*`version-number`*`.msi REMOVEOLDERJRES=1` removes *all* of the existing non-statically installed JREs from the system. **Note:** If you are running the Java 7 enterprise MSI with the REMOVEOLDERJRES argument, it might leave non-enterprise MSI's behind under certain conditions. To ensure that all older Java 7 non-enterprise versions are removed, we recommend running the following two commands first: • `msiexec /x {57BDA5C6-443C-4D65-B233-2823932170FF} /qn` • `msiexec /x {57BDA5C6-443C-4D65-B233-2823964170FF} /qn`

Table 2-1 (Cont.) Configuration File Options

Option	Values	Description
REMOVEOUTOFDATEJRES=	0, 1	Applicable to online and offline installers. Used to uninstall any existing out-of-date Java versions during JRE install. This flag will work with the JRE installer executable in the silent mode. For example, running `msiexec /i jre`*`version-number`*`.msi REMOVEOUTOFDATEJRES=1` removes *all* of the insecure JREs. JREs above the security baseline will not be uninstalled **Note:** Use the REMOVEOUTOFDATEJRES option in place of attempting to use modifyremove support.
REBOOT=	Enable, Disable	If disabled, then the installer never prompts you to restart your computer after installing the JRE. However, in most cases, the installer does not need to restart your computer after installing the JRE. Default: Enable
STATIC=	Enable, Disable	Performs a static installation (see Performing a Static Installation of the JRE). Default: Disable **Note:** This option is not available for the MSI Enterprise JRE Installer.
USAGETRACKER_CFG=	*path*	Specifies the path and file name of the Java Usage Tracker properties file.
WEB_ANALYTICS=	Enable, Disable	Allows or disallows the installer to send installation-related statistics to an Oracle server. Default: Enable
WEB_JAVA_SECURITY_LEVEL=	H (high), VH (very high)	Configures the installation's security level for Java applications running in a browser or running with Java Web Start. Default: H

Table 2-1 (Cont.) Configuration File Options

Option	Values	Description
`WEB_JAVA=`	`Enable`, `Disable`	Configures the installation so that downloaded Java applications are, or are not, allowed to run in a web browser or by Java Web Start. Default: `Enable`

Example of an Installer Configuration File

You an use the example of an installer configuration file to create your own configuration files for Windows.

The following is an example of an installer configuration file for Windows. It specifies the following:

- Perform a silent installation.
- Install the JRE in the directory `C:\java\jre`.
- Set the security level for unsigned Java applications running in a browser to very high.

Example 2-1 Example of an Installer Configuration File for Windows

```
INSTALL_SILENT=Enable
INSTALL_DIR=C:\java\jre
WEB_JAVA_SECURITY_LEVEL=VH
```

System Runtime Configuration File

After installing the JRE, the installer creates the system runtime configuration file.

In JDK 6, after using an installer configuration file to install the JRE, the installer saves it as a system runtime configuration file in `%ALLUSERSPROFILE%\Oracle\Java\java_settings.cfg`.

In JDK 8 and above, after using an installer configuration file to install the JRE, the installer saves it as a system runtime configuration file in `C:\Program Files (x86)\Common Files\Oracle\Java\java_settings.cfg`

The value of the environment variable `%ALLUSERSPROFILE%` is typically `C:\ProgramData`.