

# Java Platform, Standard Edition

## MSI Enterprise JRE Installer Guide



Release 8 for Windows

E95076-11

October 2023

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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# Preface

This guide describes how system administrators use the Oracle Java SE 8 JRE MSI Installer (MSI Enterprise JRE Installer) to install and uninstall the Java Runtime Environment (JRE) across an enterprise without requiring end user interaction. For simplicity, this guide refers to the Oracle Java SE 8 JRE MSI Installer as the JRE MSI Installer.

**Note:**

The JRE MSI Installer is available in Java SE Subscription Products. See [Oracle Java SE Universal Subscription](#) for more information. It's only available to customers for download through [My Oracle Support](#) (MOS).

## Audience

This document is intended for administrators who need to install the JRE for Microsoft Windows across their enterprises.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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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

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

# 1

## Installing the JRE With the JRE MSI Installer

You can use the Oracle Java SE 8 JRE MSI Installer (MSI Enterprise JRE Installer) to install and uninstall the Java Runtime Environment (JRE) for Windows.

The Oracle Java SE 8 JRE MSI Installer is delivered as a Microsoft Software Installer (MSI) file, and is only available to customers for download through My Oracle Support (MOS). For simplicity, this guide refers to the Oracle Java SE 8 JRE MSI Installer as the JRE MSI Installer.

The JRE MSI Installer enables you to install the JRE across your enterprise. The JRE MSI Installer is packaged as a "pure" .msi installer and runs with minimal dialogs. It can be used with system management software, such as Systems Management Server (SMS) and Systems Center Configuration Manager (SCCM). These software management suites enable you to deploy software across your enterprise. In addition to the features and options that you can specify with the JRE MSI Installer, you can specify a [Java Usage Tracker](#) configuration file and a deployment rule set. It supports silent installation of the JRE, and is customizable by using command line parameters, a parameter file, or third-party MSI customization tools.

This section includes the following topics:

- [Prerequisites and System Requirements](#)
- [Downloading the JRE MSI Installer](#)
- [Running the JRE MSI Installer](#)
- [Creating a Log File](#)

### Prerequisites and System Requirements

Before installing the JRE, verify that your system meets the system requirements and you are aware of the prerequisites for installation.

Review the [Consolidated Release Notes for JDK 8 and JDK 8 Update Releases](#) for New Features, Removed Features and Options, Known Issues, and Other Notes of importance about the version that you are installing.

See [Oracle JDK 8 and JRE 8 Certified System Configurations](#) for information about supported platforms, operating systems, and browsers.



#### Note:

If you need additional help when using the JRE MSI Installer to install the JDK 8 JRE, such as assistance for a unique or exceptional use case or situation, contact [My Oracle Support](#).

## Downloading the JRE MSI Installer

You can install JRE 8 updates and patches by downloading the appropriate Oracle JRE 8 Enterprise Installer (JRE MSI Installer) for your system from My Oracle Support (MOS).

### Note:

The JRE MSI Installers for JRE 8u371 and later removed the ability to retain older JRE versions already installed on disk (the `REMOVEOLDERJRES` option was disabled in these versions). Customers that need to retain older JRE versions should get 8u381 b32 or later from My Oracle Support and use the `RETAIN_ALL_VERSIONS` option when running the JRE MSI Installer.

1. Go to the page [Supported Java SE and Java Component Downloads on MOS \(Doc ID 1439822.2\)](#) on My Oracle Support (MOS).
2. Click the **JDK 8** tab in [Supported Java SE and Java Component Downloads on MOS \(Doc ID 1439822.2\)](#) to open the list of supported JDK 8 downloads. The most recent updates appear at the top of the list.
3. In the list of descriptions, locate the installer for the JRE version and build that you need to install and click the **Patch ID** link. The **Patches & Updates** tab opens and displays a **Patch Simple Search Results** table containing detailed information about the patch.
4. Verify the version and build in the **Description** are for the JRE MSI Installer that you need and then click the **Patch Name** link to open the patch download panel.
5. In the **Platform** drop-down list, select your operating system and then click the **Download** button.
6. A new dialog box appears that contains the download link to the JRE MSI Installer `.zip` file. Click the link and choose **Save As** from the pop-up menu to download the file to the directory of your choice.

## Running the JRE MSI Installer

Run the JRE MSI Installer downloaded from My Oracle Support (MOS) to install JRE 8 updates and patches.

### Note:

You must have administrator permissions to install JRE 8 updates.

1. Extract the contents of the `.zip` file downloaded from MOS to a directory of your choice.
2. Identify the JRE MSI Installer options and default values that you need to install the JRE have been identified. The options are listed in [JRE MSI Installer](#)

**Configuration Options.** You can also use standard Windows Installer options (see [Microsoft Standard Installer command-line options](#)).

3. If a configuration file is needed, verify that the configuration file has either been created or an existing configuration file has been updated with the options that you need. See [Creating a JRE MSI Installer Configuration File](#).
4. Navigate to the directory in which you unzipped the `.msi` installer, and, in the Command Prompt, run the installer in either Basic UI mode or in Silent (or unattended) mode. 8u371 and later installers do not allow you to install the same or older JRE 8 versions of the one already installed. To install an older version of the JRE, you must uninstall the current JRE before running the JRE MSI Installer for the older version. When you use an older version's installer (earlier than 8u371), the options for that version are still available.
  - Basic UI mode: Use this mode to have the installer display prompts and dialog boxes as it runs. This is the default setting and using `/qb` in the command line is optional.

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

- Silent (unattended) mode: Use this mode to have the installer run without displaying prompts and dialog boxes as it runs. The `/qn` setting at the end of the command line is required to run the installer in this mode.

 **Note:**

If you have a service running using Java, Java will not be updated. You must stop the service to update Java.

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

Both the Basic UI mode and the Silent (unattended) mode command lines above contain the following variables:

- `installer.msi`: The name of the JRE MSI Installer that you extracted from the `.zip` file.
- `configuration_file_path`: The path of the optional JRE MSI Installer configuration file. See [Using a JRE MSI Installer Configuration File to Install the JRE](#).
- `options`: Options with specified values, separated by spaces. You can use the options as listed in [JRE MSI Installer Configuration Options](#). You can also use standard Windows Installer options described in [Microsoft Standard Installer command-line 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. Additional logging information is also added to `%TEMP%\jused.log`. The log file for the JRE MSI Installer follows standard MSI processes. Logged error conditions and events collected in the log file are documented in [Windows Installer Logging](#) documentation.



The following is an example of creating a log file:

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

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

# 2

## Using a JRE MSI Installer Configuration File to Install the JRE

When installing the Java Runtime Environment (JRE) from the command line, you can use a configuration file to supplement the JRE MSI Installer command-line options.

You can create and use a configuration file to standardize installations and to specify options that are not available on the command line.

This section includes the following topics:

- [JRE MSI Installer Configuration Options](#)
- [Creating a JRE MSI Installer Configuration File](#)
- [System Runtime Configuration File](#)

### JRE MSI Installer Configuration Options

The following table lists the JRE MSI Installer configuration options and identifies which can be used in a configuration file and which can be used on the command line.

Options listed in the following table that can be used to create a configuration file are flagged **Y** in the **Used in Config File** column. Options flagged **Y** in the **Used in Command Line** column can be used in the command line when running the JRE MSI Installer. The options that are not available on the command line can be specified in the configuration file. See [Running the JRE MSI Installer](#) .



#### Note:

You can substitute `Enable` for 1 and `Disable` for 0.

**Table 2-1 Configuration Options**

Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
DEPLOYMENT_RULE_SET= T=	<i>path</i>	Y	Y	Specifies the path and file name of your organization's deployment rule set. See <a href="#">Deployment Rule Set</a> in <i>Java Platform, Standard Edition Deployment Guide</i> .	yes

Table 2-1 (Cont.) Configuration Options



Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
EULA=	Enable, Disable	Y	Y	Prompts the user to accept the end-user license agreement (EULA) if a Java applet or Java Web Start application is launched. Default: Disable	yes
INSTALLDIR=	<i>path</i>	N	Y	Specifies the folder or directory into which the files are installed.	no
<div style="border-left: 2px solid #0070C0; border-right: 2px solid #0070C0; border-bottom: 2px solid #0070C0; padding: 10px; background-color: #E6F2FF;"> <p> <b>Note:</b></p> <p>In 8u371 and later, the default installation directory changed to <code>\Program Files\Java\jre-\$family(jre-1.8)</code>. Beginning with JRE 8u381 b32, use the <code>RETAIN_ALL_VERSIONS=1</code> option to install later versions of an installed JRE family without removing preexisting JRE versions.</p> </div>					
NOSTARTMENU=	Enable, Disable	Y	Y	Specifies that the JRE MSI Installer installs the JRE without setting up Java start-up items. Default: Disable	no

Table 2-1 (Cont.) Configuration Options

Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
REBOOT=	Enable, Disable	Y	Y	If disabled, the installer does not prompt you to restart your computer after installing the JRE. However, in most cases, the JRE MSI Installer does not need to restart your computer after installing the JRE. Default: Enable	no

Table 2-1 (Cont.) Configuration Options

Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
REMOVEOLDERJRES	See Description	See Description	See Description		no

 **Note:**

8u371 ended support for this option. The REMOVEOLDERJRES option is ignored beginning in 8u371. Customers that need to retain older JRE versions should use the RETAIN\_ALL\_VERSIONS option included in 8u381 b32 and later. Before 8u371, using REMOVEOLDERJRES=1 enabled uninstalling all existing non-statically installed Java versions from a system during the installation of the JRE.

Table 2-1 (Cont.) Configuration Options

Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
RETAIN_ALL_VERSIONS=	1	N	Y		no

 **Note:**

Added in 8u381 b32 and later. The JRE MSI installers for JRE 8u371 and later removed the default ability to retain older JRE versions already installed on disk. (The REMOVEOLDERJRES option was disabled in these versions.) Customers that need to retain older JRE versions should use the RETAIN\_ALL\_VERSIONS=1 option in the 8u381 b32 or later.

Enables the installation of multiple JREs of the same family without removing preexisting JRE versions.

When you set this option to 1, the JRE MSI Installer installs the JRE in a unique, version-specific directory without removing any other JREs that are part of the release 8 family. By default, the name

Table 2-1 (Cont.) Configuration Options

Option	Values	Used in Config File	Used in Command Line	Description	Saved in Runtime Configuration File?
				<p>of this directory is <code>jre1.8.0_version</code>, where <i>version</i> is the update number. For example, if you install JRE 8u381 with this option enabled, then the installer installs it in a directory named, by default, <code>jre1.8.0_381</code>.</p> <p>In addition, if this option is enabled, the installer creates a registry that notifies the Java uninstall tool not to uninstall the JRE by default. When the out-of-date dialog is displayed, the option to uninstall the JRE will be deselected. See Uninstall Java Versions for more information.</p> <p>By default, the installer installs the JRE in a directory named, by default, <code>jre1.8</code> after first uninstalling any existing JREs that are part of the release 8 family.</p>	
USAGETRACKER_CFG=	<i>path</i>	Y	Y	Specifies the path and file name of the Java Usage Tracker properties file.	yes
WEB_ANALYTICS=	Enable, Disable	Y	Y	Allows or disallows the installer to send installation-related statistics to an Oracle server. Default: Enable	yes
WEB_JAVA=	Enable, Disable	Y	Y	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	yes
WEB_JAVA_SECURITY_LEVEL=	H (high), VH (very high)	Y	Y	Configures the installation's security level for Java applications running in a browser or running with Java Web Start. Default: VH	yes

## Creating a JRE MSI Installer Configuration File

A configuration file provides an alternative to setting options on command line when running the JRE MSI Installer.

You can use the configuration file to standardize installations and to specify additional installation options that are not available on the command line.

1. Either create a new file or open an existing configuration file in an ASCII text editor.
2. Add or edit options in the configuration file. Refer to the **Configuration Options** table for available options.
3. Save your configuration file as a text file in a directory of your choice.

4. When you run the JRE MSI Installer ([Running the JRE MSI Installer](#)), specify the path and file name of the configuration file in the JRE MSI Installer command.

The following example is a simple JRE MSI Installer configuration file for Windows. It specifies the following:

- Installs the JRE in the directory `C:\java\jre`.
- Sets the security level for unsigned Java applications running in a browser to very high.

#### **Example of a Simple JRE MSI Installer Configuration File**

```
INSTALLDIR=C:\java\jre  
WEB_JAVA_SECURITY_LEVEL=VH
```

## System Runtime Configuration File

After installing a newer build of a JRE 8 version, the JRE MSI Installer creates the system runtime configuration file.

After using a configuration file to install the JRE, the JRE MSI Installer saves it as a system runtime configuration file in `C:\Program Files (x86)\Common Files\Oracle\Java\java_settings.cfg`

The [Configuration Options](#) table identifies which options and values are saved in the system runtime configuration file.



# 3

## Uninstalling the JRE

You can uninstall the JRE from the command line, by using uninstall tools provided with Windows Control Panel (Control Panel), or by running the Java Uninstall Tool.

This section includes the following topics:

- [Uninstalling the JRE with the Microsoft Windows Control Panel or the Java Uninstall Tool](#)
- [Uninstalling the JRE from the Command Line](#)

### Uninstalling the JRE with the Microsoft Windows Control Panel or the Java Uninstall Tool

You can uninstall the JRE by using either the Microsoft Windows Control Panel (Control Panel) utility or the Java Uninstall tool.

To uninstall the JRE, you can use one of the following:

- The **Add/Remove Programs** utility in the Control Panel.
- The Java Uninstall tool. To use the Java Uninstall tool, go to <https://www.java.com/en/download/uninstalltool.jsp> The Java Uninstall tool helps improve your computer security by finding and uninstalling older versions of Java. The 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 Uninstaller tool will not run if it detects a deployment rule set that ensures required JREs are not uninstalled.

See [Deployment Rule Set](#) in *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. The product code code can be obtained by viewing the MSI log, or opening the MSI with an editor.