JDK Installation for Microsoft Windows

See JDK 7 and JRE 7 Installation Guide for general information about installing JDK 7 and JRE 7.

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System Requirements

See Oracle JRE 7 and JDK 7 Certified System Configurations for information about supported platforms, operating systems, and browsers.

See Windows System Requirements for JDK and JRE for minimum processor, disk space, and memory requirements.

Note:

- The JDK and JRE have a version string that enables you to determine the version number. See Java Platform Standard Edition 7, Names and Versions Version Number for information about Java SE 7 version numbers.
- The JDK has the option of installing the public JRE. For more information about JRE installation, see JRE Installation for Microsoft Windows.
- If you have any difficulties, see the Troubleshooting section at the end of this document or submit a bug report for your installation problem.

Installation Instructions Notation

For any text in this document that contains the following notation, you must substitute the appropriate update version number:

```
<version>
```

For example, if you were downloading the JDK installer for 32-bit systems for update 1.7.0_01, the file name: `jdk-7<version>-windows-i586.exe` would become `jdk-7u1-windows-i586.exe`.

Similarly, if you were downloading the JDK installer for 64-bit systems for update 1.7.0_01, the file name `jdk-7<version>-windows-x64.exe` would become `jdk-7u1-windows-x64.exe`.

Installation Instructions
In this procedure, you will run the self-installing executable file to unpack and install the JDK. As part of the JDK, this installation includes an option to include the public Java Runtime Environment. (The JDK also contains a private JRE for use only by its tools; see Private Versus Public JRE for more information.)

Install the JDK by doing the following:

- Downloading the Installer
- Running the JDK Installer
    - o Installing the JDK Silently
- Updating the PATH Variable (Optional)
- Starting to Use the JDK

Downloading the Installer
If you save the self-installing executable file to disk without running it from the download page at the web site, note that its byte size provided on the download page. After the download has completed, verify that you have downloaded the full, uncorrupted software file.

Running the JDK Installer
You must have administrative permissions in order to install the JDK on Microsoft Windows.

The file `jdk-7<version>-windows-i586-i.exe` is the JDK installer for 32-bit systems. The file `jdk-7<version>-windows-x64.exe` is the JDK installer for 64-bit systems. If you downloaded either file instead of running it directly from the web site, double-click the installer's icon. Then, follow the instructions the installer provides. The installer may ask you to reboot your computer. When finished with the installation, you can delete the downloaded file to recover disk space.

Note: Installers for JDK 7u6 and later install the JavaFX SDK and integrate it into the JDK installation directory. Installers for JDK 7u2 to 7u5 install the JDK first, then start the JavaFX SDK installer, which installs JavaFX SDK in the default directory `C:\Program Files\Oracle\JavaFX 2.0 SDK` or `C:\Program Files (x86)\Oracle\JavaFX 2.0 SDK` on 64-bit operating systems. If you want to install the JavaFX SDK (version 2.0.2) with JDK 7u1 or earlier, see Installing JavaFX for more information.

Java Start Menu
Starting with JDK 7u40 release, Java menu items are added to the Windows Start Menu to provide easy access to Java resources.

During JDK install, a `Java Development Kit` folder is created in the Windows Start Menu, which contains the following items:

- Reference Documentation: opens the Online API documentation web page.
- Java Mission Control: opens the `Java Mission Control` profiling and diagnostics tools suite.

During JDK install and uninstall processes, the appropriate start menu items are updated to be associated with the latest JDK version on the system.

Note: Java Mission Control is a commercial feature available to users with a Java SE Advanced license.

Installing the JDK Silently

You can perform a silent, non-interactive, JDK installation by using the command-line arguments. The following table lists example installation scenarios and the commands required to perform them:

Installation Scenario	Command
Install the public JRE in silent mode	`jdk.exe /s`
Install development tools and source code in silent mode but not the public JRE	`jdk.exe /s ADDLOCAL="ToolsFeature,SourceFeature"`
Install development tools, source code, and the public JRE in silent mode	`jdk.exe /s ADDLOCAL="ToolsFeature,SourceFeature,Publicjre Feature"`
Install the public JRE in the specified directory `C:\test\` in silent mode	`jdk.exe /s /INSTALLDIRPUBJRE=C:\test\`

Updating the PATH Environment Variable (Optional)

You can run the JDK without setting the `PATH` environment variable, or you can optionally set it so that you can conveniently run the JDK executable files (`javac.exe`, `java.exe`, `javadoc.exe`, and so forth) from any directory without having to type the full path of the command. If you do not set the `PATH` variable, you need to specify the full path to the executable file every time you run it, such as:

`C:\> **"C:\Program Files\Java\jdk1.7.0\bin\javac" MyClass.java**`

It is useful to set the `PATH` variable permanently so it will persist after rebooting.

To set the `PATH` variable permanently, add the full path of the `jdk1.7.0\bin` directory to the `PATH` variable. Typically, this full path looks something like `C:\Program Files\Java\jdk1.7.0\bin`. Set the `PATH` variable as follows on Microsoft Windows:

1. Click **Start**, then **Control Panel**, then **System**.

2. Click **Advanced**, then **Environment Variables**.

3. Add the location of the `bin` folder of the JDK installation for the `PATH` variable in **System Variables**. The following is a typical value for the `PATH` variable:

   `C:\WINDOWS\system32;C:\WINDOWS;`**`C:\Program Files\Java\jdk1.7.0\bin`**

Note:

- The **PATH** environment variable is a series of directories separated by semicolons (`;`) and is not case-sensitive. Microsoft Windows looks for programs in the `PATH` directories in order, from left to right.
- You should only have one **bin** directory for a JDK in the path at a time. Those following the first instance are ignored.
- If you are not sure where to add the path, add it to the right of the value of the `PATH` variable.
- The new path takes effect in each new command window you open after setting the `PATH` variable.

Installation Troubleshooting

Below are some tips for working around problems that are sometimes seen during or following an installation. For more troubleshooting information, see Troubleshooting Java SE:

- Corrupt Cabinet file
- System Error During Decompression
- Program Cannot Be Run in DOS Mode
- Private Versus Public JRE
- Creating Source Files in Notepad
- Characters That Are Not Part of the System Code Page

Corrupt Cabinet File

If you see the error message "corrupt cabinet file," then the file you have downloaded is corrupted. Check the file size against the expected file size listed in these instructions. If sizes do not match, try downloading the bundle again. (A cabinet file contains compressed application, data, resource, and DLL files.)

System Error During Decompression

If you see the error message "system error during decompression," then you might not have enough space on the disk that contains your `TEMP` directory.

Program Cannot Be Run in DOS Mode

If you see the error message "This program cannot be run in DOS mode," then do the following:

1. Open the MS-DOS shell or Command Prompt window.
2. Right-click the title bar.
3. Select **Properties**.
4. Choose the **Program** tab.
5. Click the **Advanced** button.
6. Ensure that the item "Prevent MS-DOS-based programs from detecting Windows" is not selected.
7. Select **OK**.
8. Select **OK** again.
9. Exit the MS-DOS shell.
10. Restart your computer.