Red Hat build of OpenJDK 21

Installing and using Red Hat build of OpenJDK 21 for Windows
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Abstract

Red Hat build of OpenJDK 21 for Windows is a Red Hat offering on the Microsoft Windows platform. The Installing and using Red Hat build of OpenJDK 21 for Windows guide provides an overview of this product and explains how to install the software and start using it.
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Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright’s message.
CHAPTER 1. RED HAT BUILD OF OPENJDK 21 FOR MICROSOFT WINDOWS INSTALLATION OPTIONS

Red Hat build of OpenJDK 21 for Microsoft Windows can be installed using an archive or through a graphical user interface using an MSI-based installer.

Depending on your circumstance, use one of the following installation methods:

- **Installing Red Hat build of OpenJDK with the archive**
- **Installing Red Hat build of OpenJDK with the MSI installer**
CHAPTER 2. INSTALLING RED HAT BUILD OF OPENJDK 21 FOR MICROSOFT WINDOWS WITH THE ARCHIVE

This procedure describes how to manually install Red Hat build of OpenJDK 21 for Microsoft Windows using the archive.

Procedure

1. Download the archive of Red Hat build of OpenJDK 21 for Microsoft Windows.

2. Extract the contents of an archive to a directory of your choice.

   NOTE
   Extracting the contents of an archive to a directory path that does not contain spaces is recommended.

3. Update the PATH as below:
   a. Add the bin directory contained in your Red Hat build of OpenJDK 21 for Microsoft Windows installation path to the %PATH% environment variable:

      C:> setx /m PATH "%PATH%;C:\Program Files\RedHat\java-21-openjdk-<version>\bin"

      If the path contains spaces, use the shortened path name.
   b. Restart Command Prompt to reload the environment variables.

4. To verify the Red Hat build of OpenJDK 21 for Microsoft Windows is successfully installed, run the java -version command in a command prompt.

5. The %JAVA_HOME% environment variable must also be set to use some developer tools. Set the %JAVA_HOME% environment variable as follows:
   a. Open Command Prompt as an administrator.
   b. Set the value of the environment variable to your Red Hat build of OpenJDK 21 for Microsoft Windows installation path:

      C:> setx /m JAVA_HOME "C:\Program Files\RedHat\java-21-openjdk-<version>"

      If the path contains spaces, use the shortened path name.
   c. Restart Command Prompt to reload the environment variables.
CHAPTER 3. UPDATING RED HAT BUILD OF OPENJDK 21 FOR MICROSOFT WINDOWS USING THE ARCHIVE

Red Hat build of OpenJDK 21 for Microsoft Windows can be manually updated using the archive.

Procedure

1. Download the archive of Red Hat build of OpenJDK 21.

2. Extract the contents of an archive to a directory of your choice.

   **NOTE**
   Extracting the contents of an archive to a directory path that does not contain spaces is recommended.

3. On Command Prompt, update `JAVA_HOME` environment variable as follows:
   
a. Open Command Prompt as an administrator.

   b. Set the value of the environment variable to your Red Hat build of OpenJDK 21 for Microsoft Windows installation path:

   ```
   C:\> setx /m JAVA_HOME "C:\Progra~1\RedHat\java-21-openjdk-<version>"
   ```
   
   If the path contains spaces, use the shortened path name.

   c. Restart Command Prompt to reload the environment variables.

4. Set the value of `PATH` variable if it is not set already:

   ```
   C:\> setx -m PATH "%PATH%;%JAVA_HOME%\bin";
   ```

5. Restart Command Prompt to reload the environment variables.

6. Verify that `java -version` works without supplying the full path:

   ```
   C:\> java -version
   ```
CHAPTER 4. INSTALLING RED HAT BUILD OF OPENJDK WITH THE MSI INSTALLER

This procedure describes how to install Red Hat build of OpenJDK 21 for Microsoft Windows using the MSI-based installer.

Procedure

1. Download the MSI-based installer of Red Hat build of OpenJDK 21 for Microsoft Windows.
2. Run the installer for Red Hat build of OpenJDK 21 for Microsoft Windows.
3. Click Next on the welcome screen.
4. Check I accept the terms in license agreement, then click Next.
5. Click Next.
6. Accept the defaults or review the optional properties.
7. Click Install.
8. Click Yes on the Do you want to allow this app to make changes on your device?.
9. To verify the Red Hat build of OpenJDK 21 for Microsoft Windows is successfully installed, run java -version command in the command prompt.
CHAPTER 5. RED HAT BUILD OF OPENJDK MSI INSTALLER COMPONENTS

You can set the following Red Hat build of OpenJDK 21 for Microsoft Windows MSI-based installer components. Setting these components is optional. If these components are not set, the default settings will be used.

**jdk**
Java Development Kit (JDK) files. Defaults to `true`, meaning that the `jdk` component is enabled.

**jdk_registry_runtime**
A set of Windows registry keys that other software can use to locate JDK installation files. Defaults to `true`, meaning that the `jdk_registry_runtime` component is enabled. This component includes the following registry keys:

- HKLM\Software\JavaSoft\JDK\<version>, entries:
  - JavaHome: <INSTALLDIR>
  - RuntimeLib: <INSTALLDIR>\bin\server\jvm.dll

- HKLM\Software\JavaSoft\JDK, entries:
  - CurrentVersion: <version>

**jdk_env_path**
Appends `<INSTALLDIR>\bin` to the system `%PATH%` environment variable.

**jdk_env_java_home**
Sets `<INSTALLDIR>` to the system `%JAVA_HOME%` environment variable.

**jdk_env_vendor_java_home**
Sets `<INSTALLDIR>` to the system `%REDHAT_JAVA_HOME%` environment variable.

**jdk_registry_jar**
Association for JAR files. Launch JAR files with the Red Hat build of OpenJDK context menu.

**jmc**
JDK Mission Control files, installed into `<INSTALLDIR>\missioncontrol`.

**jmc_env**
Appends `<INSTALLDIR>\missioncontrol` to the system `%PATH%` environment variable.
The Red Hat build of OpenJDK for Windows MSI-based installer includes the *JDK Files* component and the following optional properties:

**Table A.1. Red Hat build of OpenJDK for Windows MSI-based installer properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenJDK Runtime - Windows Registry</td>
<td>Sets registry keys that other software can use to locate JDK installation files.</td>
<td>Yes</td>
</tr>
<tr>
<td>OpenJDK Runtime - Path Variable</td>
<td>Adds the Runtime to the Path variable so it is available from the command line.</td>
<td>Yes</td>
</tr>
<tr>
<td>OpenJDK Runtime - JAVA_HOME System Variable</td>
<td>JAVA_HOME is used by some programs to find the Java runtime.</td>
<td>No</td>
</tr>
<tr>
<td>OpenJDK Runtime - REDHAT_JAVA_HOME System Variable</td>
<td>REDHAT_JAVA_HOME can be used by some programs to find the Red Hat build of OpenJDK runtime.</td>
<td>No</td>
</tr>
<tr>
<td>OpenJDK Runtime - Jar Files Association</td>
<td>This enables Jar files to be run from within Windows Explorer.</td>
<td>No</td>
</tr>
<tr>
<td>Mission Control - Files</td>
<td>Contains files that are installed in the <code>&lt;installdir&gt;\missioncontrol</code> directory.</td>
<td>No</td>
</tr>
<tr>
<td>Mission Control - Path Variable</td>
<td>Appends <code>&lt;installdir&gt;\missioncontrol</code> to the system PATH environment variable.</td>
<td>No</td>
</tr>
</tbody>
</table>