



## Red Hat build of OpenJDK 11

### Release notes for Eclipse Temurin 11.0.19





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## Abstract

The release notes for Eclipse Temurin 11.0.19 provide an overview of new features in OpenJDK 11 and a list of potential known issues and possible workarounds.

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## PREFACE

Open Java Development Kit (OpenJDK) is a free and open-source implementation of the Java Platform, Standard Edition (Java SE). Eclipse Temurin is available in three LTS versions: OpenJDK 8u, OpenJDK 11u, and OpenJDK 17u.

Binary files for Eclipse Temurin are available for macOS, Microsoft Windows, and multiple Linux x86 Operating Systems including Red Hat Enterprise Linux and Ubuntu.

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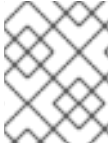
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## CHAPTER 1. SUPPORT POLICY FOR ECLIPSE TEMURIN

Red Hat will support select major versions of Eclipse Temurin in its products. For consistency, these are the same versions that Oracle designates as long-term support (LTS) for the Oracle JDK.

A major version of Eclipse Temurin will be supported for a minimum of six years from the time that version is first introduced. For more information, see the [Eclipse Temurin Life Cycle and Support Policy](#).



### NOTE

RHEL 6 reached the end of life in November 2020. Because of this, Eclipse Temurin does not support RHEL 6 as a supported configuration.

## CHAPTER 2. ECLIPSE TEMURIN FEATURES

Eclipse Temurin does not contain structural changes from the upstream distribution of OpenJDK.

For the list of changes and security fixes that the latest OpenJDK 11 release of Eclipse Temurin includes, see [OpenJDK 11.0.19 Released](#).

### New features and enhancements

Review the following release notes to understand new features and feature enhancements included with the Eclipse Temurin 11.0.19 release:

#### SSLv2Hello and SSLv3 protocols removed from default-enabled TLS protocols

SSLv2Hello and SSLv3 are versions of the SSL protocol that are disabled by default, because they have not been considered secure for some time. The SSLv2Hello and SSLv3 protocols are superseded by the more secure and modern TLS protocol and users can switch to TLS versions 1.2 or 1.3.

With release OpenJDK 11.0.19, the list of default-enabled protocols no longer includes SSLv2Hello and SSLv3. Therefore, even if you remove SSLv3 from the **`jdk.tls.disabledAlgorithms`** security property, the following methods no longer return SSLv3:

- **`SSLServerSocket.setEnabledProtocols()`**
- **`SSLEngine.setEnabledProtocols()`**
- **`SSLParameters.getProtocols()`**

Now, if you want to enable SSLv3, you must use the **`jdk.tls.client.protocols`** or **`jdk.tls.server.protocols`** system property on the command line, or call one of the following methods to enable SSLv3 programmatically:

- **`SSLSocket.setEnabledProtocols()`**
- **`SSLServerSocket.setEnabledProtocols()`**
- **`SSLEngine.setEnabledProtocols()`**

See [JDK-8190492 \(JDK Bug System\)](#).

#### Certigna (Dhimyotis) root certificate authority (CA) certificate added

In release OpenJDK 11.0.19, the **`cacerts`** truststore includes the Certigna (Dhimyotis) root certificate:

- Name: Certigna (Dhimyotis)
- Alias name: certignarootca
- Distinguished name: CN=Certigna, O=Dhimyotis, C=FR

See [JDK-8245654 \(JDK Bug System\)](#).

#### **`listRoots`** method returns all available drives on Windows

In previous releases, the **`java.io.File.listRoots()`** method on Windows systems filtered out any disk drives that were not accessible or did not have media loaded. However, this filtering led to observable performance issues.

Now, with release OpenJDK 11.0.19, the **`listRoots`** method returns all available disk drives unfiltered.

See [JDK-8208077 \(JDK Bug System\)](#).

### Enhanced Swing platform support

In earlier releases of OpenJDK, HTML object tags rendered embedded in Swing HTML components. With release OpenJDK 11.0.19, rendering only occurs if you set the new system property **swing.html.object** to true. By default, the **swing.html.object property** is set to false.

JDK bug system reference ID: JDK-8296832.

*Revised on 2024-05-09 16:48:10 UTC*