Red Hat build of OpenJDK 11

Release notes for Eclipse Temurin 11.0.16

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Abstract

Review the release notes to understand new features and feature enhancements that have been included with the latest build of OpenJDK 11 that is provided by Eclipse Temurin.

Table of Contents

PREFACE 3

MAKING OPEN SOURCE MORE INCLUSIVE 4

CHAPTER 1. SUPPORT POLICY FOR ECLIPSE TEMURIN 5

CHAPTER 2. ECLIPSE TEMURIN FEATURES 6

New features and enhancements 6

Vector throws ClassNotFoundException for a missing class of an element 6

HTTPS channel binding support for Java Generic Security Services (GSS) or Kerberos 6

Incorrect handling of quoted arguments in ProcessBuilder 6

Default JDK compressor closes when IOException is encountered 6

New system property to disable Windows Alternate Data Stream support in java.io.File 6

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.

Packages for Eclipse Temurin are made available on Microsoft Windows and on multiple Linux x86 Operating Systems including Red Hat Enterprise Linux and Ubuntu.

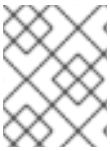
MAKING OPEN SOURCE MORE INCLUSIVE

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. 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 included in the latest OpenJDK 11 release of Eclipse Temurin, see OpenJDK 11.0.16 Released.

New features and enhancements

Review the following release notes to understand new features and feature enhancements included with the Eclipse Temurin 11.0.16 release:

Vector throws ClassNotFoundException for a missing class of an element

When the class of a Vector element is not found, **java.util.Vector** now correctly reports the **ClassNotFoundException** that occurs during deserialization by using **java.io.ObjectInputStream.GetField.get(name, object)**. Previously, a **StreamCorruptedException** error was displayed, which didn't provide any information about the missing class.

See, JDK-8277157 (JDK Bug System)

HTTPS channel binding support for Java Generic Security Services (GSS) or Kerberos

The OpenJDK 11.0.16 release supports TLS channel binding tokens when Negotiate selects Kerberos authentication over HTTPS through **javax.net.HttpsURLConnection**.

Channel binding tokens enhance security by mitigating some man-in-the-middle (MITM) attacks. When a server receives details regarding the binding between a TLS server certificate and authentication credentials for a client, the server detects if a MITM attack has fooled the client and can shut down the connection.

The feature is controlled through the **jdk.https.negotiate.cbt** system property, which is described fully in Oracle documentation.

See, JDK-8285240 (JDK Bug System)

Incorrect handling of quoted arguments in ProcessBuilder

Before the OpenJDK 11.0.16 release, arguments to **ProcessBuilder** on Windows that started with a double quotation mark and ended with a backslash followed by a double quotation mark passed to a command incorrectly, causing the command to fail. For example, the argument **"C:\\Program Files\"**, was processed as having extra double quotation marks at the end.

The OpenJDK 11.0.16 release resolves this issue by restoring the previously available behavior, in which the backslash (\) before the final double quotation mark is not treated specially.

See, JDK-8283137 (JDK Bug System)

Default JDK compressor closes when IOException is encountered

The **DeflaterOutputStream.close()** and **GZIPOutputStream.finish()** methods have been modified to close out the associated default JDK compressor before propagating a **Throwable** class up the stack. The **ZIPOutputStream.closeEntry()** method has been modified to close out the associated default JDK compressor before propagating an **IOException**, not of type **ZipException**, up the stack.

See, JDK-8278386 (JDK Bug System)

New system property to disable Windows Alternate Data Stream support in java.io.File

The Windows implementation of **java.io.File** allows access to NTFS Alternate Data Streams (ADS) by default. These streams are structured in the format **filename:streamname**. The OpenJDK 11.0.16 release adds a system property that allows you to disable ADS support in **java.io.File**. To disable ADS support in **java.io.File**, set the **jdk.io.File.enableADS** system property to **false**.

IMPORTANT

Disabling ADS support in **java.io.File** results in stricter path checking that prevents the use of special devices such as **NUL:**.

See, JDK-8285660 (JDK Bug System)

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