



Specify Collections Consortium Members Should Replace Oracle Java SE with Amazon Corretto on all Specify 6 Workstations

28 March 2019 (Revised 10 February 2022)

Specify 6 software is written in Java and requires software known as the Java Runtime Environment (JRE) to operate. Oracle Corp. changed their licensing terms for their Java SE 8 package, requiring most institutional users to pay a fee for usage and for updates.

Individuals can still download and use Oracle SE version 8 for personal use, but commercial users cannot. Here is Oracle's definition of Commercial Users:

Commercial Users are entities other than Oracle Customers that use Java SE for free for business, commercial or production purposes as part of a Java application delivered by a third party or developed internally.

That definition includes museums that run Specify 6 software on workstations for collections databases. Many universities, agencies, and free-standing museums do not have campus-wide Oracle licenses that entitle them to continue to use and receive updates of the Oracle SE 8 package. As of February 1, 2019, Oracle is entitled to license payments from institutions using Oracle Java SE 8. We know of large universities that are purging campus computers of Oracle Java SE software in order to avoid that financial obligation. Other education and research institutions are likely responding in a similar way.

Fortunately, Amazon has stepped in to fill the gap created by Oracle's licensing changes and it has made available a 100% compatible alternative to Oracle Java SE. Amazon "Corretto" (<https://aws.amazon.com/corretto/>) is a no-cost, multiplatform, production-ready distribution of the Open Java Development Kit (OpenJDK), the same code source from which Oracle produces its Java SE software.

Amazon is offering its Java Corretto package at no cost with free long-term support for security patches and updates.

Long Term Support includes Amazon's commitment to provide performance enhancements and security updates at no cost until at least the specified date for the relevant release version (e.g., June 2023 for Corretto 8). Updates are planned to be released quarterly. Amazon also plans to apply urgent fixes (including security) outside of the regular quarterly cycle when they are available and ready to use.

Amazon offers Corretto installer packages for each of the free desktop operating systems, Windows, macOS, and Linux:

<https://docs.aws.amazon.com/corretto/latest/corretto-8-ug/windows-7-install.html>

<https://docs.aws.amazon.com/corretto/latest/corretto-8-ug/macos-install.html>

<https://docs.aws.amazon.com/corretto/latest/corretto-8-ug/generic-linux-install.html>

Institutional and campus IT departments may already have a strategy for this migration--if you enjoy centralized IT systems support, consult with IT staff to know how your institution is responding. There

may be other applications on your workstation that have campus licenses to run Oracle Java, before removing Oracle's Java SE package from desktop computers running Specify you should check with your systems administrators. Because Corretto is designed to be 100% compatible with Oracle's Java SE package, all existing Windows applications requiring Java should run fine with 32-bit or 64-bit Corretto.

We provide an installation guide below for the Amazon Corretto. It is easy to download and install, no specialized computer systems administration expertise is required for self-managed computers.

Amazon's user guide for Corretto is here: <https://docs.aws.amazon.com/corretto/latest/corretto-8-ug/corretto-8-ug.pdf>

For new Specify 6 installations on Windows computers

Follow the updated instructions on the Specify website.

(<https://www.specifysoftware.org/wp-content/uploads/2022/01/Install-Specify-on-Windows.pdf>)

For new Specify 6 installations on Debian Linux computers

Follow the updated instructions on the Specify website.

(<https://www.specifysoftware.org/wp-content/uploads/2022/01/Debian-installation-2022.pdf>)

For new Specify 6 installations on macOS computers

Follow the updated instructions on the Specify website.

(<https://www.specifysoftware.org/wp-content/uploads/2022/01/macOS-Installation-2022-v2.pdf>)

***Note:** Visit the [Specify 6 Documentation](#) page to see up-to-date documents and walkthroughs.*

For Existing Specify installations

1. If you have centralized IT support, contact your systems support office to determine if the institution has a plan to make this change from Oracle Java SE to Amazon Corretto.
2. Install Amazon Corretto 8 on each workstation. Java is not required on servers running MySQL but is required for Specify 6. Specify does not use the Java web browser plug-in. Linux workstation users may optionally use an install command to obtain the openjdk-8-jre package. (<https://openjdk.java.net/install/>)

Windows Installation Notes

1. The Amazon Corretto Installer changes the Windows Path environment variable, by pre-pending the directory path to the Corretto JDK directory, before entries to the Oracle Java path. Specify will then find and use the Corretto JRE. The Amazon installer does not delete the Oracle JRE Path variable; uninstalling Oracle Java will do that. The Corretto MSI installer will also set the JAVA_HOME variable:

JAVA_HOME=C:\Program Files (x86)\Amazon Corretto\jdk1.8.0_202 (32-bit Corretto)

JAVA_HOME=C:\Program Files\Amazon Corretto\jdk1.8.0_202 (64-bit Corretto)

2. If you are running an obsolete version of Specify 6 for Windows, after installing Corretto, trying to start Specify will generate this error:

No JVM could be found on your system. Please define EXE4J_JAVA_HOME ...

You need to upgrade Specify to the latest release. Choose to update the existing installation if prompted by the Specify 6 installer.