

## **Oracle New JDK Release Model Impacts on Progress OpenEdge Application Developers and Users**

### **Introduction**

As has been widely covered in the press, Oracle is moving to monetize Java. At a summary level:

- Java 8 is a long-term supported (LTS) release. If it is used in production, there is no licensing fee. However, if the user would like to stay current on bug fixes and security patches from Oracle, effective January 1, 2019, they must be licensed. The Java Platform, Standard Edition (Java SE) is offered from Oracle as a Subscription.
- Java 9 and Java 10 are NOT LTS releases. Given the short (6 month) duration of support, most Java users (at least OpenEdge Java users) will likely not put these into a production environment.
- Java 11 is a LTS release. If it is used in production, specifically the Java Runtime Environment (JRE), then it must be licensed from Oracle. Java SE, which includes the JRE, is offered from Oracle as a Subscription.
- Development organizations like Progress and our ISVs can continue to distribute Java 8 (or earlier) installation kits, *up to the release available as of the end of 2018*. They do not have the right to redistribute Java 11 or later. The implication is that obtaining the Java Developers Kit (JDK) or the JRE will become a prerequisite for installation of OpenEdge and associated business applications starting with Java 11. In addition, for OpenEdge versions that support Java 8, the version of the JDK supplied with the installation will be frozen after the end of 2018 and potentially will be removed from the installation kit at a future date.
- OpenJDK is a no-cost open source alternative to Oracle JDK SE. Oracle has committed to make OpenJDK equivalent to Oracle Java SE starting with Java 11. For OpenJDK 8, it is not yet clear if it will be equivalent to Java SE 8 starting in January 2019 and beyond- more details will be published as we learn more.

### **The Java Developers Kit (JDK) and Java Runtime Environment (JRE)**

The JDK is used with the development of Java code, and it contains the JRE along with other tools. The JRE, as the name implies, is the runtime engine to execute Java code. Oracle provides the Java Standard Edition, referred to as “Java SE”, which includes:

- The JDK, plus the JavaFX (Swing replacement) Software Development Kit (SDK)
- The JRE
- JavaFX Runtime (now Open Source and will not be part of Java SE 11)
- JRockit JDK

## Where the JDK is Used by OpenEdge Application Developers

While much of the business application coding is done using the Advanced Business Language (ABL), testing does require the JRE. In addition, the JDK may be required when the following OpenEdge components are used:

- Java OpenClient
- ProxyGen
- PAS for OpenEdge (prior to the move to Java 11, targeted for Q3 CY2019)

## OpenEdge Status

Over the past several months, the OpenEdge team has been working with counterparts in other product lines at Progress to understand the Oracle changes, assess their impact, and strategize options. The current status:

- OpenEdge 11.7 and the planned OpenEdge 12.0 make use of Java SE 8. As of January 1, 2019, users of these OpenEdge versions who would like to obtain Java bug fixes and security patches can contract with Oracle.
- We are investigating the status and reliability of OpenJDK for Java 8 in order to determine whether OpenJDK for Java 8 will supply the same bug fixes and security patches as Oracle offers. If so, then we will certify the use of OpenJDK so that OpenEdge customers have the choice of contracting with Oracle or making use of OpenJDK at no additional cost. We anticipate the investigation to be completed and determination made before end of Q1 CY2019.
- OpenEdge 11.6 makes use of Java 7. OpenEdge 11.6 is scheduled to move to the Retired life cycle status in March 2019, therefore we will not be investigating OpenJDK for that version. We strongly recommend users upgrade to OpenEdge 11.7 or higher.
- For OpenEdge 12, the plan is to move to Java 11 sometime after the targeted Q1 CY2019 release of OpenEdge 12.0. Note that Progress does not have the right to redistribute Oracle Java 11, so it will become a prerequisite. We also intend to certify OpenJDK for Java 11 (target H2 CY2019).

OpenEdge Version	JDK Version	Oracle JDK Released Before 1/1/2019	Oracle JDK Released On/After 1/1/2019	OpenJDK Support
10.2B	5	Free to use	Contract with Oracle	No
11.6	7	Free to use	Contract with Oracle	No
11.7	8	Free to use	Contract with Oracle	11.7.5 (T)
12.0	8	Free to use	Contract with Oracle	TBD
12.1	11 (T)	Contract with Oracle	Contract with Oracle	12.1 (T)

(T) – Target, not officially committed at this time. OpenEdge 11.7.5 is targeted for Q2 CY2019, and OpenEdge 12.1 is targeted for H2 CY2019.

## Recommendations

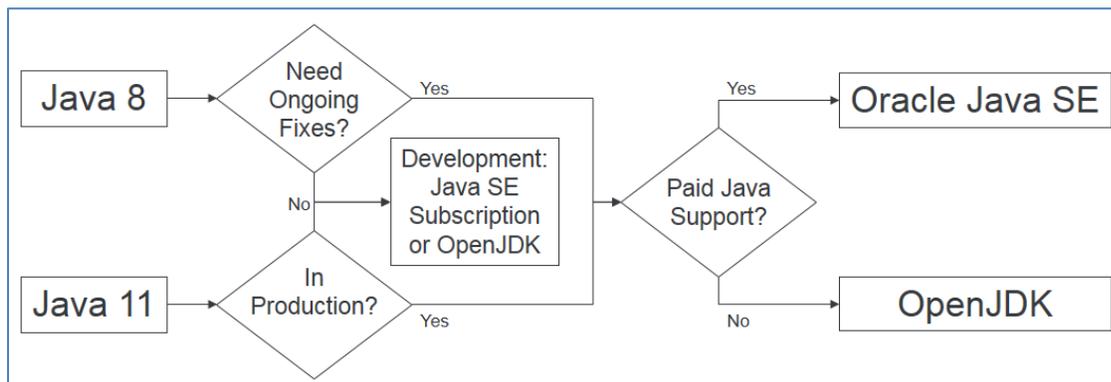
As a user of an OpenEdge application, you will need to decide what Java support option is best for you:

- If you prefer paid-for support for Java SE, then you have the option of contracting with Oracle for their Java SE Subscription to obtain bug fixes and security updates to Java 8 or earlier. For OpenEdge 11.7 and 12.0, Progress is working to certify OpenJDK 8 as an alternative, with a target of H1 CY2019.
- When OpenEdge 12 moves to Java 11 (target H2 CY2019), you have a choice on access to bug fixes and security patches, depending on whether you want to pay for support from Oracle:
  - Obtain a Java SE Subscription from Oracle
  - Use your OpenEdge application with OpenJDK 11, once it is certified by the OpenEdge team

As an ISV producing OpenEdge applications for resale:

- If you prefer paid-for support for Java, then you have the option of contracting with Oracle to obtain bug fixes and security updates to Java 8 or earlier, for development purposes. You can continue to ship the Java 8 JDK, *up to the last commercially available (no cost) version at the end of 2018*, with your application installation kit if you so choose.
- The same is true once OpenEdge supports Java 11 (target H2 CY2019). You will likely want to contract with Oracle as a development organization to receive the most current bug fixes and security updates over time.
- If you prefer to receive your JDK releases, bug fixes and security updates at no additional cost but also with no support, you may do that once the OpenEdge team certifies OpenJDK as discussed above.
- The end users of your application will be responsible for obtaining a contract with Oracle for support and use of Java SE (and in particular the JRE), or for utilizing the no-cost OpenJDK once that is supported by Progress.

**Table 2: JDK Decision Flow**



## Where Can I Get More Information?

One place to start is the Oracle web site. There is an informative blog titled “[A Quick Summary on the new Java SE Subscription](#)” that may be helpful, and that blog provides links to a Java SE Subscription FAQ and Data Sheet, plus a link to the Subscription web page.

To contact Oracle Sales, visit <https://www.oracle.com/corporate/contact/global.html>.