

Why changing anything related to the usage of Java?

STEP relies on the Java Runtime Environment to execute the software running both the server and the STEP Workbench. The current versions of STEP all run Java 8 from Oracle.

Unfortunately, Oracle will cease to support Java 8 at the end of January 2019. Java 8 has been what Oracle calls their Long-Term Support (LTS) version, but the time has now run out and the LTS will be continued with Java 11. Oracle takes this opportunity to change their license agreements, and it will no longer be legal to use Java for professional purposes without a commercial license agreement with Oracle. This is true for both Java 8 and Java 11.

Stibo Systems has been investigating the options available from Oracle, but because of this new policy, there will be a commercial and an administrative issue related to continuing using Oracle Java. Stibo Systems cannot force customers to count named users of the STEP Workbench and CPUs on the STEP server side, which is required under the new Oracle Java license regulations.

Can we continue to use Java 8?

It is possible to stay with the currently installed Java 8 from Oracle for the time being, but no security updates will be available without the commercial agreement with Oracle.

With a commercial agreement, Oracle will support Java 8 until at least 2025.

Existing versions of STEP will continue to work with Java 8, but instead of bundling the Oracle version of Java with the server installation, Stibo Systems will provide a new Java Runtime Environment from AdoptOpenJDK. This will be the case for STEP 9.1.

Please note that Stibo Systems will no longer test STEP releases, including hotfixes, using anything but the JDK from AdoptOpenJDK. It is not feasible for to test on many different platforms, and if a hotfix is tested and seen to be working on a server run by AdoptOpenJDK, it's extremely likely to work on Oracle as well. Stibo Systems can give no guarantees though.

How about support, if we continue with Oracle Java?

If you, as a customer, raises an issue on a STEP system still running Oracle Java, Stibo Systems will follow the normal procedure and treat the issue as any other support related issue. Only in the very rare case, if it will ever happen, where a problem is reported on an Oracle Java based system and the problem cannot be reproduced running on an AdoptOpenJDK based STEP system, (part of) the solution from the Stibo Systems side will be to insist that AdoptOpenJDK is applied before spending more time on the problem. Furthermore, in general, if the solution to a support related problem gives rise to a hotfix, that hotfix will only be tested by Stibo Systems on OpenJDK based STEP installations.

Will Stibo help acquiring licenses for Oracle Java?

No, running Oracle Java after January 2019 as runtime system for STEP server or STEP Workbench installations is not recommended by Stibo Systems. Please apply the AdoptOpenJDK option as soon as

possible to avoid any license obligations from Oracle and risk support related issues in relation to the STEP system.

What versions of STEP will this affect?

The new Java support will be made available for all currently supported versions of STEP. That is: all versions from 8.0 up to 9.1. The new Java environment is bundled with STEP 9.1. Customers upgrading to 9.1 will therefore get this automatically.

How do I make the shift to AdoptOpenJDK ?

Client side: See below in the section “How will the change affect our STEP Workbench users?”

Server side: Upgrading to STEP 9.1 will handle this automatically. For supported versions of STEP, you must upgrade the existing Java component, which also includes the new Workbench Launcher.

See the section “We're hosting our own STEP installation. What actions do we need to take?” below on how to install the new component.

And what about Java 11?

The next feature release of STEP (9.2) coming out in 2019, will bundle and use a newer version of the OpenJDK Java, version 11.

Our version of STEP is very old. What should we do?

The immediate recommendation is to upgrade.

From a legal perspective, you can safely keep running on your old installation

Oracle will not charge for those versions of Java 8 that have previously been released (2018 and earlier). Upgrades in 2019 and forward will only be security updates (details are to be found here: <https://www.oracle.com/technetwork/java/java-se-support-roadmap.html>).

For security reasons, we always recommend running on updated Java Runtime Environments.

How will the change affect our STEP Workbench users?

It will no longer be a requirement for users of the STEP workbench to have Java installed on their workstations (PCs / Macs). Instead they will have to install the STEP Workbench Launcher, using a small

program downloadable from the STEP Start Page. After installation, the workbench will be launched exactly as today, using the icons on the STEP Start Page.

This change is necessary, because the technology behind the old Workbench launcher, *Java Web Start*, is no longer available with newer versions of Java or with any other Java 8 build, except the one from Oracle.

How will the change affect users of the STEP Web UI?

There will be no changes to users of the STEP Web UI.

What happened to the Java Control Panel on the client side?

It's still there, if the client has an Oracle Java installed.

As all aspects of using and configuring Java on the client is now controlled by the STEP server, the Java Control Panel is no longer needed (or supported) to configure Java for the STEP Workbench.

We're hosting our own STEP installation. What actions do we need to take?

Apart from the changes outlined above concerning the workbench, customers running on older versions will have to upgrade the Java component on their STEP servers. This is done by a system administrator, like all other upgrades, using the SPOT tool.

You will need to upgrade SPOT before updating the server:

```
./spot --upgrade=spot  
./spot --apply=to:java/7.0/latest.spr,to:workbench-  
launcher/7.0/latest.spr
```

We're using STEP in the cloud. How will this affect us?

The STEP installation will be automatically upgraded by Stibo Systems.

Will this affect the customizations we've bought from Stibo Systems?

The change does not affect customizations in any way, and the same goes for any partner-driven extensions to STEP.

Is the change chargeable support?

Detailed information on how to switch to AdoptOpenJDK will be provided in Release Notes. In case further assistance is required Stibo Global Support can offer to help on a Chargeable basis (T&M).

How much downtime would be required?

No additional downtime is required compared to regular STEP upgrades.

Will the change affect upstream / downstream systems?

No, the change of the Java runtime system will not have any significance to up- or downstream systems.

The new Java version supplied by Stibo Systems is Open Source. Is it stable? Is it safe?

Java has been an open source project since Sun sold it to Oracle in 2009. The version built by Oracle is based on the same source code as AdoptOpenJDK. The project is sponsored by large corporations like IBM and Microsoft.

The builds from AdoptOpenJDK can therefore be considered just as stable and secure as the JDKs from Oracle.

Will the shift to OpenJDK cause any degrade in performance / scalability of STEP?

Stibo Systems has been through before/after tests to get an indication of whether the shift to AdoptOpenJDK has had an impact on the performance of STEP. There's no significant difference in performance between the two runtime environments.