TOMCAT 10 AND JAKARTA EE

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INTRODUCTIONS

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Tomcat committer since 2003

Tomcat PMC member since 2005

Also Commons, ASF member, Infrastructure volunteer, VP Brand Management, former Director
JAVA EE 8

Tomcat 9 implements a subset of specifications

- Servlet
- Java Server Pages
- Java Unified Expression Language
- Java WebSocket
JAVA EE 8

Tomcat 9 also implements:

- Java Debugging Support for Other Languages
- Java Authentication Service Provider Interface for Containers
- Common Annotations
JAKARTA EE 8

Re-badged Java EE 8

No functional changes

Some very minor clean-up (Javadoc typos)

No specification documents
JAKARTA EE 9
CHANGES IN JAKARTA EE 9

javax.* renamed to jakarta.*
packages, request attributes, system properties, etc.
No functional changes
No new functionality
More clean-up but only if binary compatible (ignoring the package rename)
Includes updated specification documents
IMPACT

Everything breaks
Everything needs to be updated
Everything needs to be recompiled
Should be a "simple" global rename
You can't target both Jakarta EE 8 and 9
WHY?
Primary audience is tool vendors
Not targeted at end users
End users can migrate if they wish
HELP!

Migration doesn't have to be painful

Migration can be automated

There is an automatic migration tool (github.com/apache/tomcat-jakartaee-migration)
TOMCAT'S JAKARTA EE 9 SUPPORT
JAKARTA EE 9

Jakarta EE 9 development work is essentially complete
Working through Jakarta Platform release process
Expected release December 2020
TOMCAT 10.0.X

Supports subset of Jakarta EE 9
(same as Tomcat 9 / Java EE 8)

Jakarta Servlet 5.0

Jakarta WebSocket 2.0

Jakarta Server Pages 3.0

Jakarta Expression Langauge 4.0
TOMCAT 10.0.X

Have been tracking the specification progress
TCK progress is tracked on the Tomcat wiki
Currently releasing alpha versions
TRANSITION TO BETA

Requires:

- Final specifications - due December 2020
- Completed implementations - ready now

Expect first beta release late 2020 / early 2021
TRANSITION TO STABLE

Requires:

- User feedback that it is stable

Tomcat 10.0.x and 9.0.x very similar code bases

Expect Tomcat 10.0.x to be stable early in 2021
JAKARTA EE 10 AND BEYOND
TOMCAT AIMS

Support Java EE 8 as long as there is demand
Support Jakarta EE 9 onwards
Provide a Java EE to Jakarta EE migration path

Note: Expect Jakarta EE 10 to follow Jakarta EE 9 fairly quickly
CURRENT STATUS

10.0.x : Jakarta EE 9 development
9.0.x : Java EE 8 support
8.5.x : Java EE 7 support
7.0.x : Java EE 6 support (EOL 31 March 2021)

Migration tool
JAKARTA EE 10 ONWARDS

10.0.x : Jakarta EE 9 support (only until 10.1.x is stable)
10.1.x : Jakarta EE 10 support
11.0.x : Jakarta EE 11 support
Y.0.x : Jakarta EE Y support
JAVA EE 8 SUPPORT

Available as long as there is viable user community requiring it

Will track latest stable Tomcat release

9.10.x : Tomcat 10.1.x but with Java EE 8 API

9.11.x : Tomcat 11.0.x but with Java EE 8 API

9.Y.x : Tomcat Y.0.x but with Java EE 8 API

Users will be expected to update to latest 9.y.x release for fixes
TOMCAT SUPPORT TIME-SCALES

Continue to support 3 major releases in parallel

Plus Java EE 8 compatible release

Major versions will track Jakarta EE platform releases

Expect each major release to continue to be supported for ~10 years
EVENTUALLY

Tomcat N.y.x (master): Supports Jakarta EE N

Tomcat (N-1).y.x: Supports Jakarta EE (N-1)

Tomcat (N-2).y.x: Supports Jakarta EE (N-2)

Tomcat 9.N.x: Continues to support Java EE 8 with Tomcat API identical to latest Tomcat N

See https://cwiki.apache.org/confluence/display/TOMCAT/Jakarta+EE+Release+Numbering
JAKARTA EE ROADMAP

Long term under discussion

Short term minor enhancements and fixes

May be additional releases of individual specifications

Eg: Servlet 5.1

Current Tomcat release will update to these additional releases as they become available

Ie: Tomcat 10.0.x would update from Servlet 5.0 to Servlet 5.1 if there was a Servlet 5.1 release
QUESTIONS?
THANK YOU

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