Introductions

- Mark Thomas
- Tomcat committer since 2003
- ASF member since 2007
- markt@apache.org
- ASF, Eclipse, VMware

Retrospective

- Looking back over the last 12 months
- Community
- Code

- Future plans

Community

People

- ~2,900 subscribers to the users list
- ~80 contributors
- 28 PMC members ~16 active
- 19 committers ~3 active
- No new committers or PMC members

Events

- ApacheCon Asia 2021
- ApacheCon @Home 2021

- https://tomcat.apache.org/presentations.html

- Still have $5,000 from Google for a security event

Translations

- https://poeditor.com/projects/view?id=221603

- Anyone can contribute
- Small (few %) improvements this year
- Opportunity to contribute

Code

Releases

- Tomcat 8.5.x
  - Java EE 7
- Tomcat 9.0.x
  - Java EE 8 / Jakarta EE 8
- Tomcat 10.0.x
  - Jakarta EE 9 (the one where the packages were renamed)
- Tomcat 10.1.x
  - Jakarta EE 10

Releases

	A	S	O	N	D	J	F	M	A	M	J	J
10.1.x	X	X	X	X	X	X	X	X	X	X	X	...
10.0.x	X	X	X	X	X	X	X	X	X	X	X	...
9.0.x	X	X	X	X	X	X	X	X	X	X	X	...
8.5.x	X	X	X	X		X	X	X	X	X	X	...
N 2.0.x												...
N 1.2.x		X						X		X	X	...
mod_jk												
EE mig												X

Notable new features

- Jakarta EE 10
- Experimental supports for OpenSSL via Panama API
- Custom static resource caching strategies
- Expand support for key / cert formats
- k8s service binding PropertySource

Notable bugs

- Linux kernel duplicate accept bug
  - Great community effort
  - Bug report from danielra
  - Spring MVC team
  - OpenJDK team
  - Christopher Gual

Other

- Reproducible builds
- Switched from Cobertura to JaCoCo
  - Java 11+ support
  - Multi-threading support
- Use of JSign for signing Windows binaries
  - Platform independent signing
  - No native tools required
- Obtain ASF build dependencies from the CDN

Jakarta EE 10 / Tomcat 10.1.x

- Minimum Java 11
- Remove deprecated code
- Servlet
  - Clarified decoding and normalization of URIs
  - RFC 6265 for Cookies
  - Request and connection identifiers

Jakarta EE 10 / Tomcat 10.1.x

- JSP
  - Option for unknown identifiers to throw an exception
  - Deprecate jsp:plugin
- Expression Language
  - Default method support for BeanELResolver
  - Coerce LambdaExpression to functional interface invocation
  - Array coercion

Jakarta EE 10 / Tomcat 10.1.x

- WebSocket
  - Client side TLS configuration API
  - Allow programmatic deployment of endpoints at any time
  - Separate JARs for client and server

Reproducible builds

- Tomcat releases are reproducible
- Requires
  - Same Java version
  - Same Ant version
- More detail in the Reproducible Builds session
- Allows for validation of binaries

Tomcat Native

- 1.2.x
  - Minimum OpenSSL 1.0.2
  - APR/Native connector support
- 2.0.x
  - Minimum OpenSSL 3.0.x
  - No APR/Native connector support
- Long term plan is to use project Panama
  - See modules in 10.1.x

OpenJDK

- Java 16 reached EOL
- Java 17 (LTS)
- Java 18

- Java 19 EA
- Java 20 EA

Security

- 6 issues in last 12 months
  - None particularly notable

- Not affected by Log4shell

Future Plans

Tomcat 9

- Last Tomcat version to support Java EE
- Will be maintained as long as there is demand
- Tomcat 9.10.x
  - Once 10.1.x is EOL (~8 years away)
  - Retain Java EE 8 API
  - Back-port all (most?) other changes
    (e.g. removal of APR connector)
- Tomcat 9.11.x
  - Once 11.0.x is EOL (~10+ years away)

Tomcat 11

- Jakarta EE 11
  - Work expected to start later this year
- No plans at this stage for QUIC support
- Currently no other significant changes planned
- Timescales still TBD
  - Best guess mid-2024
  - Tomcat 8.5.x will EOL around the same time

Jakarta EE 11

- Removal of the Security Manager
- Servlet clarifications
  - Asynchronous error handling
  - Unlikely all issues will be addressed
- WebSocket
  - Mostly enhancements
  - A few clarifications

Jakarta EE 11

- Pages
  - Very stable
  - Removal of deprecated code
- Expression Language
  - Removal of deprecated code (java.desktop dependency)
  - Small number of enhancements
- Authentication
  - Possible combination with authorization

Contribute

Contribute

- Ask questions
  - Answer questions
- Bug reports
- Translations
- Release candidate testing
- Maven Plugin

THANK YOU

markt@apache.org

https://tomcat.apache.org/