

CommunityOverCode

THE ASF CONFERENCE

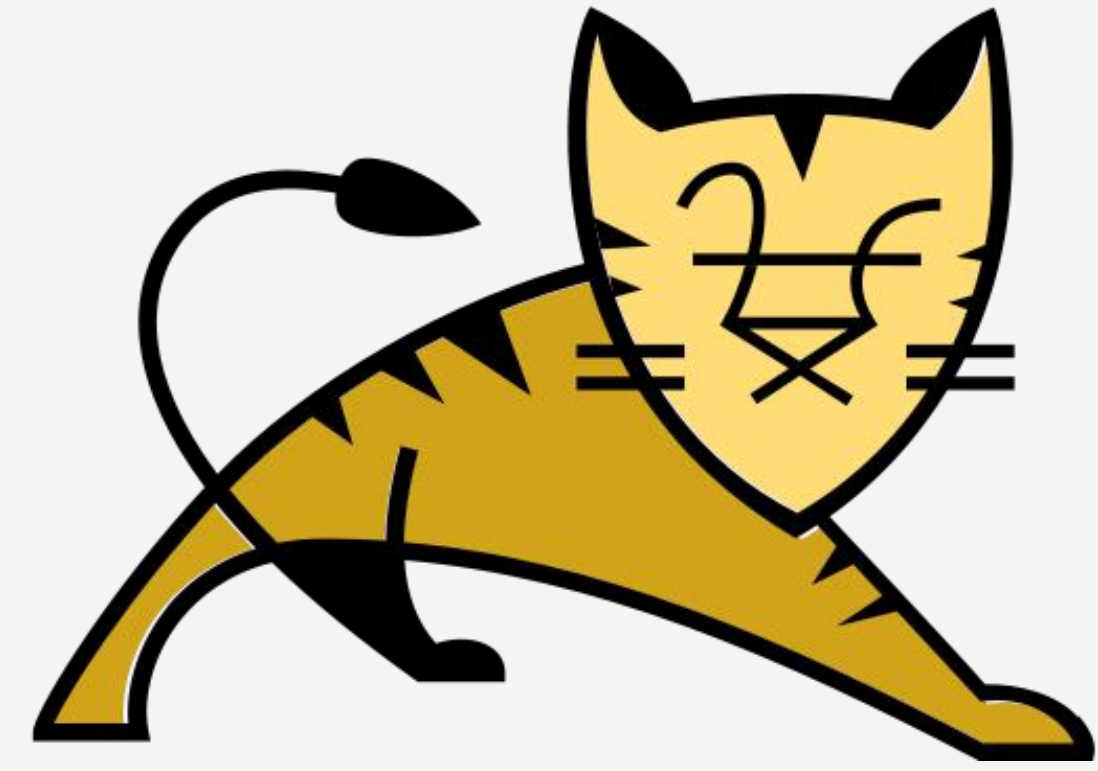


# How to participate in Tomcat community

 Han Li (李晗)

# Introductions

- Han Li (李晗)
- Senior Engineer @ Netease Youdao
- Tomcat committer since 2022
- Tomcat PMC member since 2023



# CONTENTS

1. Translation

2. Mailing Lists

3. BUG & PR

4. Release Voting



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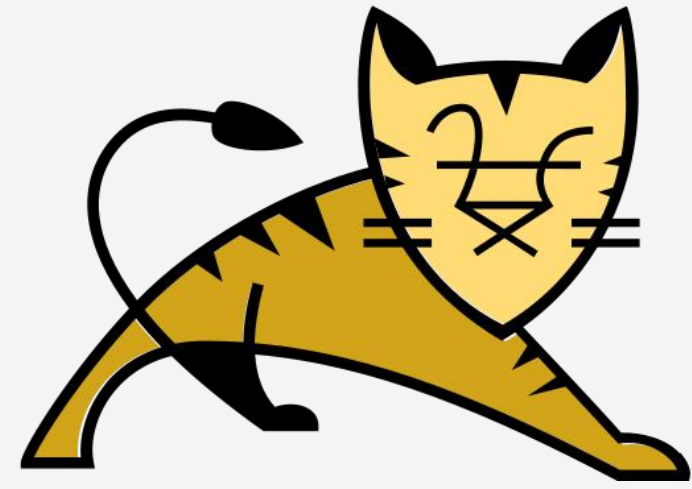
# Translation

<https://poeditor.com/join/project/NUTljDWzrl>





# Translation



Join link: <https://poeditor.com/join/project/NUTljDWzrl>

**Need to be consistent !!!!**

| English  | Chinese  |
|--|--|
| <input type="checkbox"/> The executor has not been started<br><small>java.org.apache.catalina.core.zzz.standardVirtualThreadExecutor.notStarted</small>  |  |
| <input type="checkbox"/> RateLimitFilter <code>[[0]]</code> initialized with <code>[[1]]</code> requests per <code>[[2]]</code> seconds. Actual is <code>[[3]]</code> per <code>[[4]]</code> milliseconds. <code>[[5]]</code> .<br><small>java.org.apache.catalina.filters.zzz.rateLimitFilter.initialized</small> |  |
| <input type="checkbox"/> Access to the specified resource <code>[[0]]</code> has been forbidden.<br><small>java.org.apache.catalina.filters.zzz.http.403</small>   | 禁止访问指定资源 <code>[[0]]</code> 。  |
| <input type="checkbox"/> Invalid start level, valid levels are: <code>SND_RX_SEQ,SND_TX_SEQ,MBR_TX_SEQ,MBR_RX_SEQ</code><br><small>java.org.apache.catalina.tribes.group.zzz.channelCoordinator.invalid.startLevel</small><br><small>安柏诚, 4 years ago</small>  | 启动级别无效, 有效级别为: <code>SND_RX_SEQ, SND_TX_SEQ, MBR_TX_SEQ, MBR_RX_SEQ</code> |
| <input type="checkbox"/> The absolute uri: <code>[[0]]</code> cannot be resolved in either web.xml or the jar files deployed with this application<br><small>java.org.apache.jasper.resources.zzz.jsp.error.taglibDirective.absUriCannotBeResolved</small>   | 无法在web.xml或使用此应用程序部署的jar文件中解析绝对uri: <code>[[0]]</code>                     |
| <input type="checkbox"/> XML parsing error on file <code>[[0]]</code>  | 无法解析 XML 文件 <code>[[0]]</code>   |

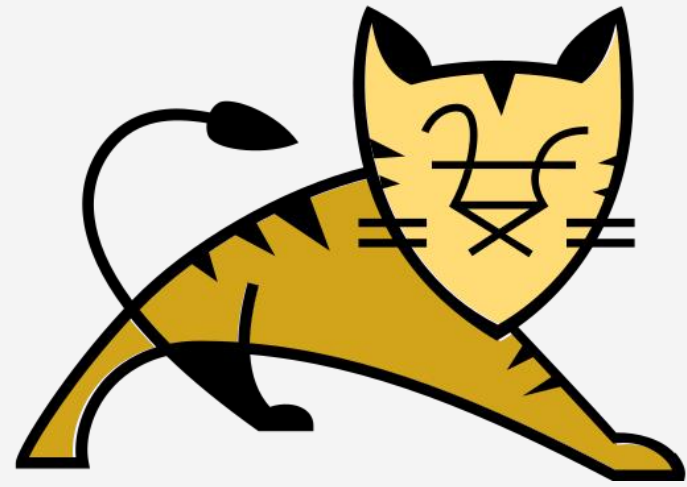
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# Mailing Lists



# Mailing Lists



- tomcat-users
  - Subscription: Send a blank email to [users-subscribe@tomcat.apache.org](mailto:users-subscribe@tomcat.apache.org)
  - Ask question: (please state following information)
    1. your exact Tomcat version
    2. your operating system
    3. your configuration
    4. your full stack trace
- tomcat-dev (**Not a user support list!**)
  - Subscription: Send a blank email to [dev-subscribe@tomcat.apache.org](mailto:dev-subscribe@tomcat.apache.org)
  - Receive commit messages
  - Receive Bugzilla notifications
  - Discussions about the actual development of the Tomcat

<https://tomcat.apache.org/lists.html>



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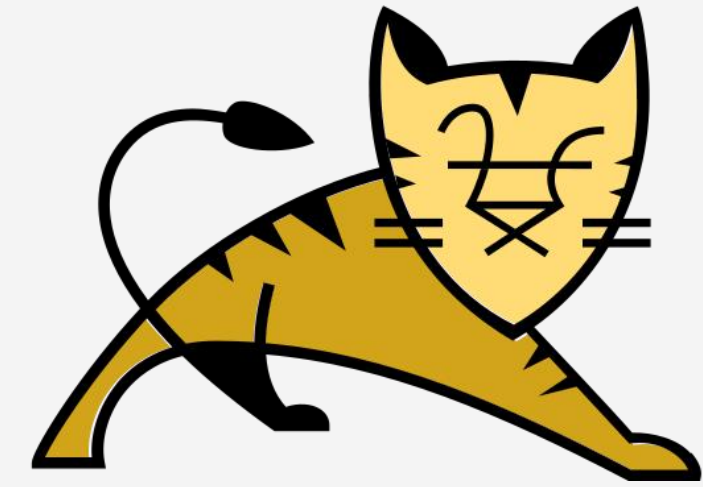
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BUG & PR





# Bugzilla



Please don't use this as a forum!

**ASF Bugzilla – Search for bugs**

[Home](#) | [New](#) | [Browse](#) | [Search](#) |  Search [\[?\]](#) | [Reports](#) | [Preferences](#) | [Help](#) | [Log out](#) lihan@apache.org

[My Bugs](#)

---

[Simple Search](#)

Hover your mouse over each field label to get help for that field.

**Summary:**   Search

|  |   |  |   |
|--|---|--|---|
| <b>Product:</b><br><input type="text" value="test"/><br>Tomcat 10<br>Tomcat 11<br>Tomcat 3<br>Tomcat 4<br>Tomcat 5 | <b>Component:</b><br>Authentication<br>Catalina<br>Cluster<br>Connectors<br>Documentation<br>EL | <b>Status:</b><br>UNCONFIRMED<br>NEW<br>ASSIGNED<br>REOPENED<br>NEEDINFO<br>RESOLVED | <b>Resolution:</b><br>---<br>FIXED<br>INVALID<br>WONTFIX<br>LATER<br>REMIND |
|--|---|--|---|

► **Detailed Bug Information** Narrow results by the following fields: Comments, URL, Keywords, Bug Numbers, Version, Target Milestone, Severity, Priority, Hardware, OS

► **Search By People** Narrow results to a role (i.e. Assignee, Reporter, Commenter, etc.) a person has on a bug

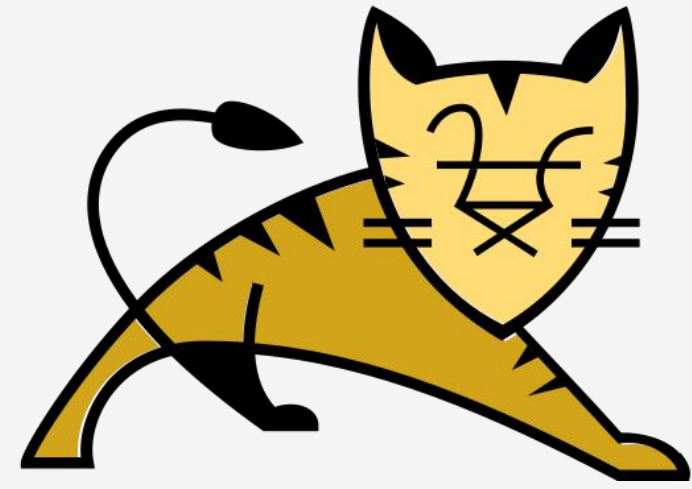
► **Search By Change History** Narrow results to how fields have changed during a specific time period

► **Custom Search** Didn't find what you're looking for above? This area allows for ANDs, ORs, and other more complex searches.

Sort results by:

<https://bz.apache.org/bugzilla/>





apache / tomcat

ode Pull requests 20 Actions Projects Security Insights

tomcat Public Edit Pins Unwatch 482 Fork 4.6k Starred 6.8k

main 7 branches 392 tags Go to file Add file Code

markt-asf Additional debug logging after CI test failure ... 5cd6da7 14 hours ago 25,340 commits

|                   |  |              |
|-------------------|--|--------------|
| .github/workflows | Try not using multiple values in exclude                             | 2 months ago |
| bin               | Improve messages if JAVA_HOME / JRE_HOME not set correctly           | 3 months ago |
| conf              | Improved regexp performance: "a-zA-Z0-9_" -> "\w" (#592)             | 4 months ago |
| java              | Update comment   | 19 hours ago |
| modules           | Simplify code for allocation of blank arrays                         | last week    |
| res               | Increment version for next development cycle                         | 3 weeks ago  |
| test              | Additional debug logging after CI test failure                       | 14 hours ago |
| webapps           | Refactor to reduce pinning in HTTP/2 code when using virtual threads | 2 days ago   |
| .editorconfig     | Add ALv2 header (reported by RAT)                                    | 2 years ago  |
| .gitignore        | Fix wrong path   | 6 months ago |

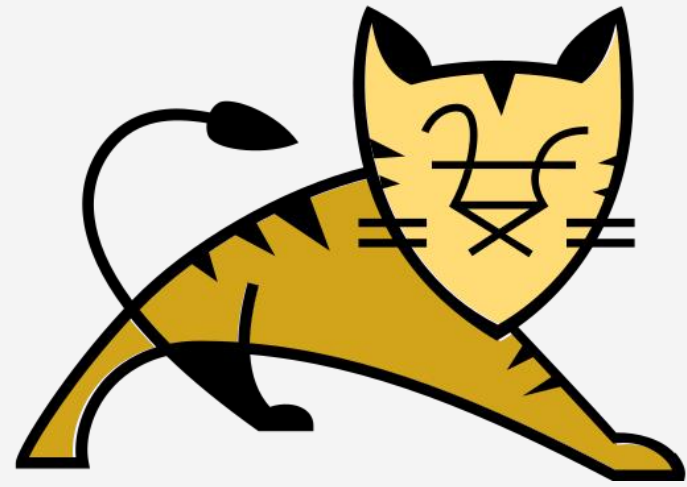
**About**  
Apache Tomcat  
[tomcat.apache.org](https://tomcat.apache.org)  
java http tomcat javaee  
network-server

- Readme
- Apache-2.0 license
- Code of conduct
- Security policy
- Activity
- 6.8k stars
- 482 watching
- 4.6k forks

Report repository

<https://github.com/apache/tomcat>

# Configure IDE



## 1. Checkout source code

- > **git clone https://github.com/apache/tomcat.git**
- > **git checkout \$target-version**

## 2. Build Apache Tomcat

- > **ant**

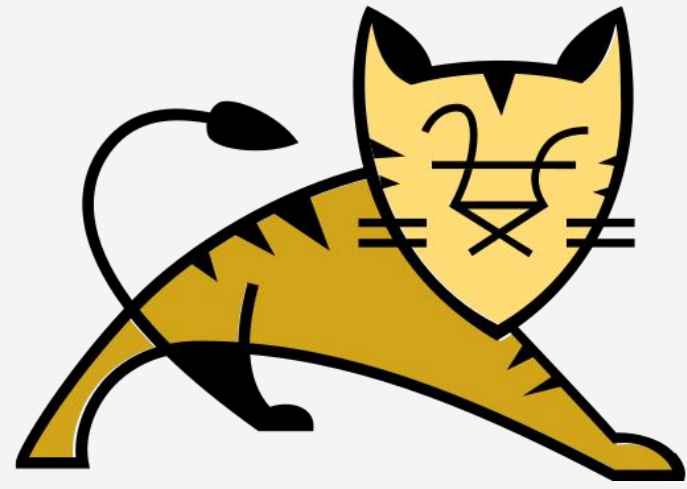
## 3. Configure your favorite IDE

- IDEA ( > **ant ide-intellij** )
- Eclipse ( > **ant ide-eclipse** )
- NetBeans ( > **ant ide-netbeans** )

## 4. Learn how to create and submit patches from [the Apache Contributors Teach Guide](#)



# Configure IDE



Build Failed



<https://asciinema.org/a/602717>

Build success & configure IDE

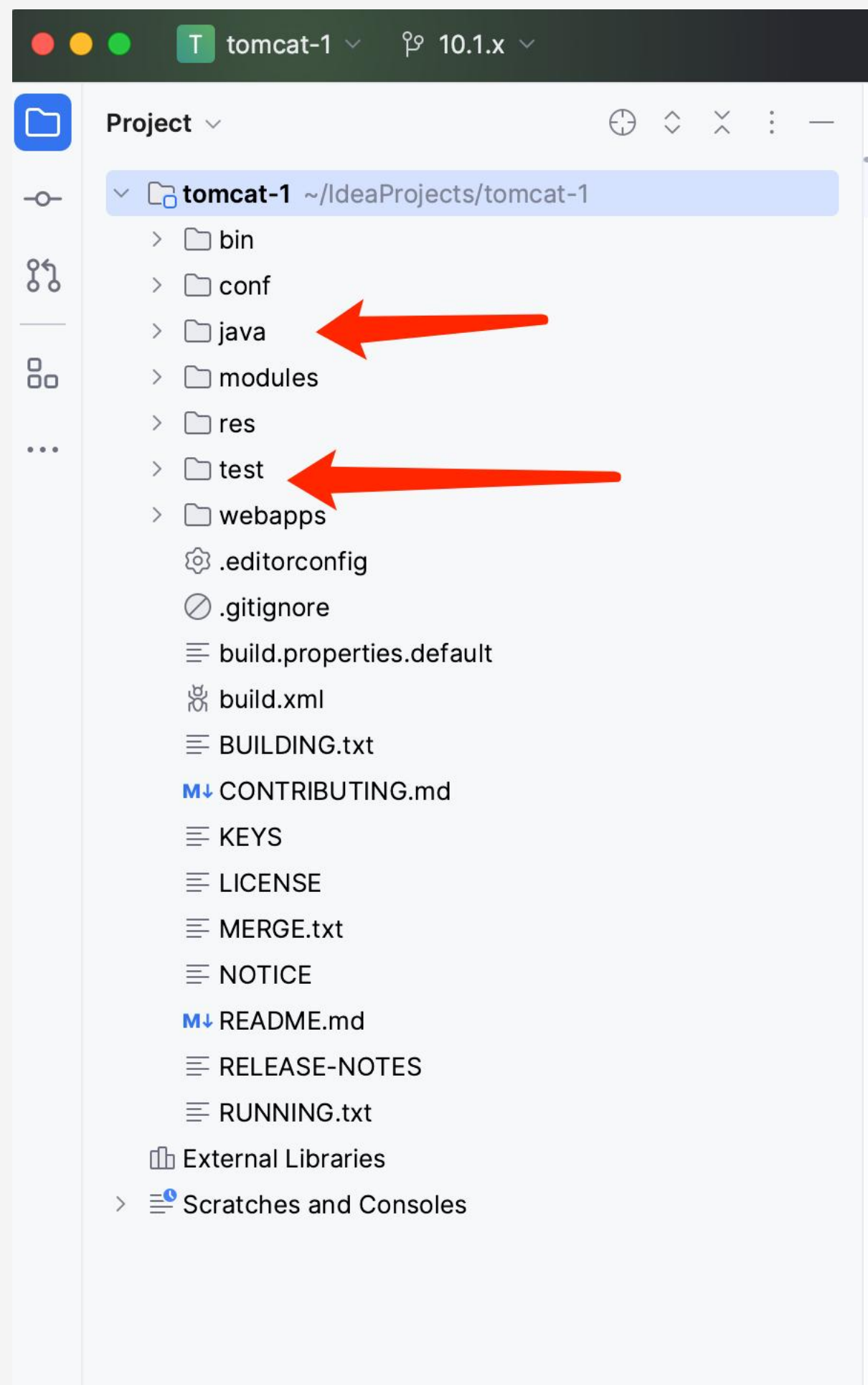
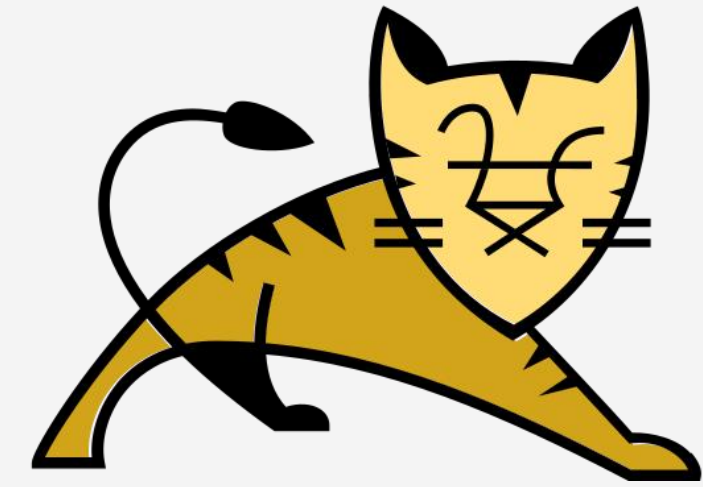


<https://asciinema.org/a/602718>

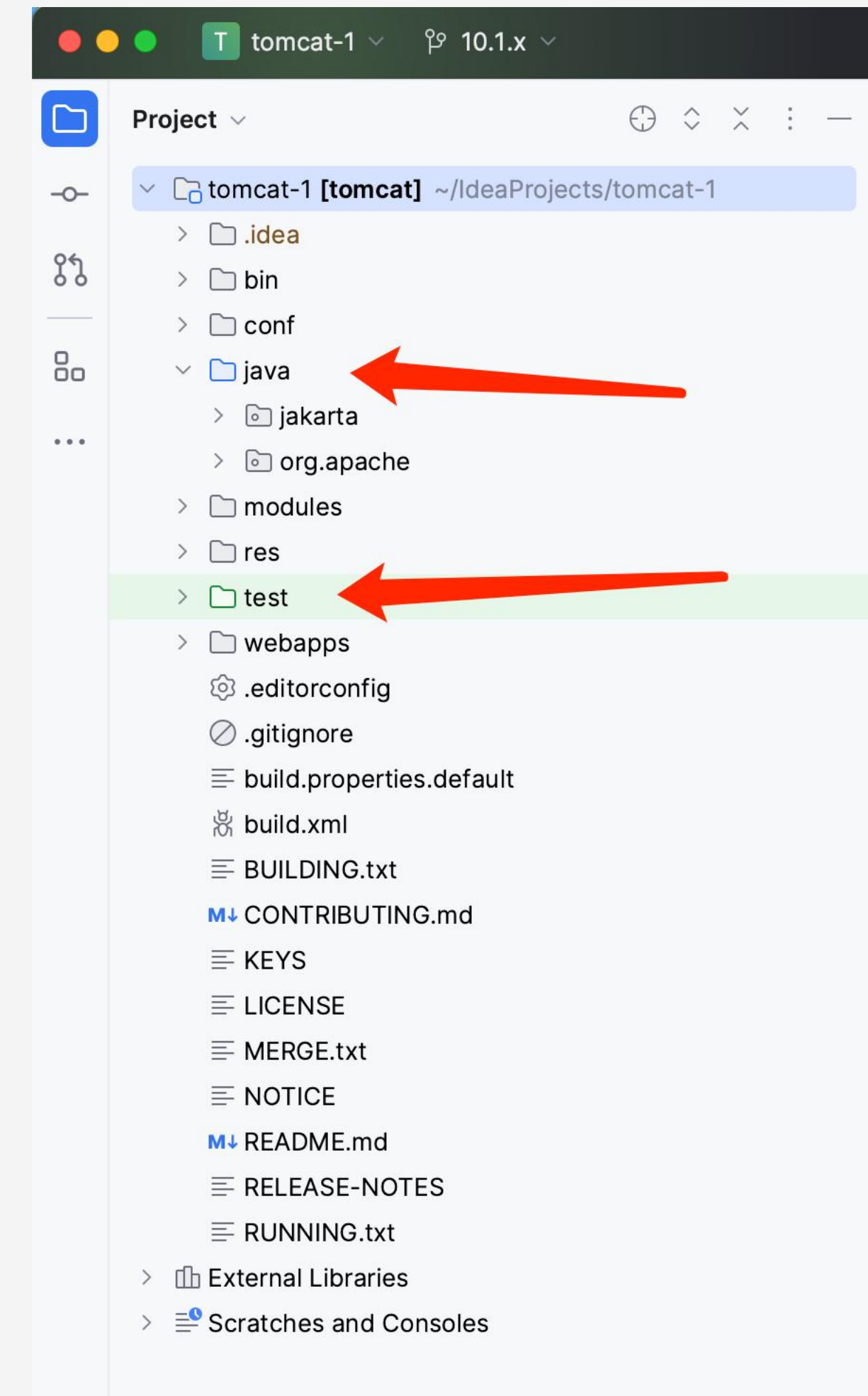




# Configure IDE



> ant ide-intelij



Build failed: <https://asciinema.org/a/602717>

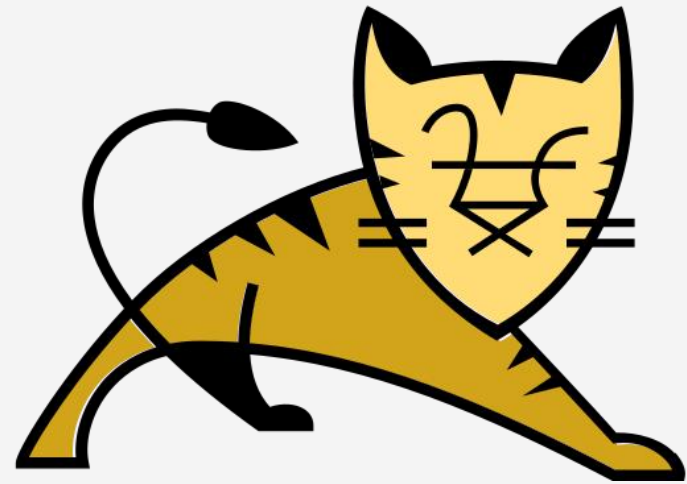
Build success & Config IDE: <https://asciinema.org/a/602718>

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# Release Voting





# Pre-preparation work

## 1. Subscribe to the dev@ mailing list. (require)

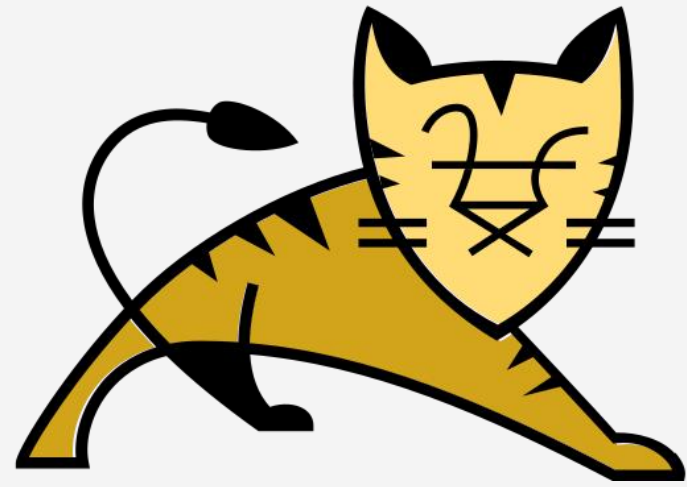
- Send a blank email to [dev-subscribe@tomcat.apache.org](mailto:dev-subscribe@tomcat.apache.org)

## 1. Install a Java Development Kit (require)

- 11.0.x requires **21** and later.
- 10.1.x requires **11** and later.
- 9.0.x requires **8** and later.
- 8.5.x requires **7** and later.

Reference: <https://tomcat.apache.org/whichversion.html>

# Pre-preparation work



## 3. Install Apache Ant (require)

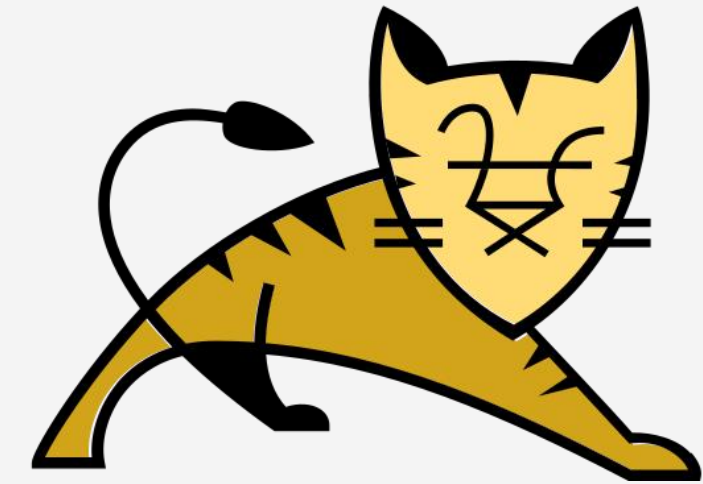
- Download a binary distribution of Ant from <https://ant.apache.org/bindownload.cgi>
- Use your package manager (Homebrew, APT, etc.) (e.g. **brew install ant** / **apt-get install ant**)

## 4. Install Revision-Control tool (optional)

- Git
  - Use your package manager (e.g. **brew install git** / **apt-get install git**)
- Subversion
  - Use your package manager (e.g. **brew install subversion** / **apt-get install subversion**)



# Step 1. Look for [VOTE] threads on dev@ mailing list



Searching "Inbox — Google" Found 64 results (Connection Logging Enabled)

All Results

The following votes were cast: Binding: +1: markt, lihan, remm  
No other votes were cast. The vote therefore passes. Thank...

← Rémy & Mark Inbox - Google 2023/8/12, 14:18  
[VOTE] Release Apache Tomcat 8.5.92 3  
Rémy ----- To  
unsubscribe, e-mail: dev-unsubscribe@tomcat.apache.org F...

← Rémy & Mark Inbox - Google 2023/8/11, 16:53  
[VOTE] Release Apache Tomcat 11.0.0-M10 4  
Rémy ----- To  
unsubscribe, e-mail: dev-unsubscribe@tomcat.apache.org F...

← Rémy & Mark Inbox - Google 2023/8/11, 16:28  
[VOTE] Release Apache Tomcat 9.0.79 3  
Rémy ----- To  
unsubscribe, e-mail: dev-unsubscribe@tomcat.apache.org F...

← Mladen & Mark Inbox - Google 2023/8/10, 00:23  
[VOTE] Release Apache Tomcat 10.1.12 3

Mark Thomas Inbox - Google 2023/8/7, 19:51  
[VOTE][RESULT] Release Apache Tomcat Native 1.2.38  
The following votes were cast: Binding: +1: markt, lihan, remm,  
mturk No other votes were cast. The vote therefore passes....

Mark Thomas Inbox - Google 2023/8/7, 19:49  
[VOTE][RESULT] Release Apache Tomcat Native 2.0.5  
The following votes were cast: Binding: +1: markt, lihan, remm,  
mturk No other votes were cast. The vote therefore passes....

← Mladen, Rémy & Mark Inbox - Google 2023/8/7, 17:58  
[VOTE] Release Apache Tomcat Native 2.0.5 5  
Regards -- ^TM  
----- To unsu...

← Mladen, Rémy & Mark Inbox - Google 2023/8/7, 17:58  
[VOTE] Release Apache Tomcat Native 1.2.38 5

MT Mark Thomas <markt@apache.org> July 4, 2023 at 19:00  
1 [VOTE] Release Apache Tomcat 11.0.0-M9 2  
To: Tomcat Developers List <dev@tomcat.apache.org>

The proposed Apache Tomcat 11.0.0-M9 release is now available for voting.

Apache Tomcat 11.0.0-M9 is a milestone release of the 11.0.x branch and has been made to provide users with early access to the new features in Apache Tomcat 11.0.x so that they may provide feedback. The notable changes compared to the previous milestone include:

- Add ContextNamingInfoListener, a listener which creates context naming information environment entries
- Add PropertiesRoleMappingListener, a listener which populates the context's role mapping from a properties file.
- Update the Jakarta EL and Jakarta WebSocket implementations to align with the latest changes planned for Jakarta EE 11

For full details, see the change log:  
<https://nightlies.apache.org/tomcat/tomcat-11.0.x/docs/changelog.html>

Applications that run on Tomcat 9 and earlier will not run on Tomcat 11 without changes. Java EE applications designed for Tomcat 9 and earlier may be placed in the \$CATALINA\_BASE/webapps-javaee directory and Tomcat will automatically convert them to Jakarta EE and copy them to the webapps directory. Applications using deprecated APIs may require further changes.

It can be obtained from:  
<https://dist.apache.org/repos/dist/dev/tomcat/tomcat-11/v11.0.0-M9/>

The Maven staging repo is:  
<https://repository.apache.org/content/repositories/orgapachetomcat-1443>

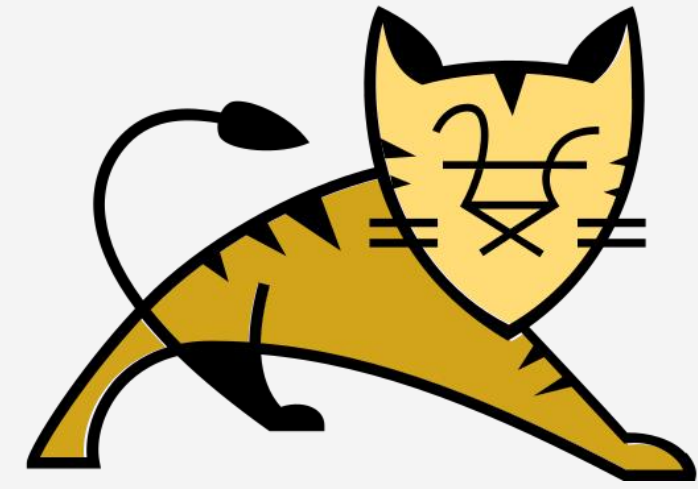
The tag is:  
<https://github.com/apache/tomcat/tree/11.0.0-M9de714a23642a4d0baef342db6762a7f7a550d82c>

The proposed 11.0.0-M9 release is:  
[ ] -1 Broken - do not release  
[ ] +1 Alpha - go ahead and release as 11.0.0-M9

1. [VOTE] is a pre-release sign.
2. Version number to be released.
3. Some important changes compared to the previous version.
4. Source code tag.



## Step 2. Checkout the source code



- Download the source code manually from [1]

- Clone the source using git, then checkout a specific tag from [2]

> **git clone https://github.com/apache/tomcat**

> **git fetch --tags**

> **git checkout \$target-version**

MT Mark Thomas <markt@apache.org> July 4, 2023 at 19:00  
[VOTE] Release Apache Tomcat 11.0.0-M9  
To: Tomcat Developers List <dev@tomcat.apache.org>

The proposed Apache Tomcat 11.0.0-M9 release is now available for voting.

Apache Tomcat 11.0.0-M9 is a milestone release of the 11.0.x branch and has been made to provide users with early access to the new features in Apache Tomcat 11.0.x so that they may provide feedback. The notable changes compared to the previous milestone include:

- Add ContextNamingInfoListener, a listener which creates context naming information environment entries
- Add PropertiesRoleMappingListener, a listener which populates the context's role mapping from a properties file.
- Update the Jakarta EL and Jakarta WebSocket implementations to align with the latest changes planned for Jakarta EE 11

For full details, see the change log:  
<https://nightlies.apache.org/tomcat/tomcat-11.0.x/docs/changelog.html>

Applications that run on Tomcat 9 and earlier will not run on Tomcat 11 without changes. Java EE applications designed for Tomcat 9 and earlier may be placed in the \$CATALINA\_BASE/webapps-javaee directory and Tomcat will automatically convert them to Jakarta EE and copy them to the webapps directory. Applications using deprecated APIs may require further changes.

It can be obtained from:  
<https://dist.apache.org/repos/dist/dev/tomcat/tomcat-11/v11.0.0-M9/> 1

The Maven staging repo is:  
<https://repository.apache.org/content/repositories/orgapachetomcat-1443>

The tag is:  
<https://github.com/apache/tomcat/tree/11.0.0-M9-de714a23642a4d0baef342db6762a7f7a550d82c> 2

The proposed 11.0.0-M9 release is:  
[] -1 Broken - do not release  
[] +1 Alpha - go ahead and release as 11.0.0-M9

# Step 3. Build & Test

> ant test

Be patient for a while. (~ 30 minutes)

> ant test-status

Path:\${working}/output/build/logs/TEST-[Class].[IOtype].txt



## Success!

Buildfile: /Users/lihan/IdeaProjects/tomcat/build.xml

test-status:

[concat] Testsuites with skipped tests:

[concat] TEST-org.apache.catalina.connector.TestRequest.NIO.txt

[concat] TEST-org.apache.catalina.connector.TestRequest.NIO2.txt

.....

[concat] Testsuites with failed tests: <- content is empty

## Failed!

Buildfile: /Users/lihan/IdeaProjects/tomcat/build.xml

test-status:

[concat] Testsuites with skipped tests:

[concat] TEST-org.apache.catalina.connector.TestRequest.NIO.txt

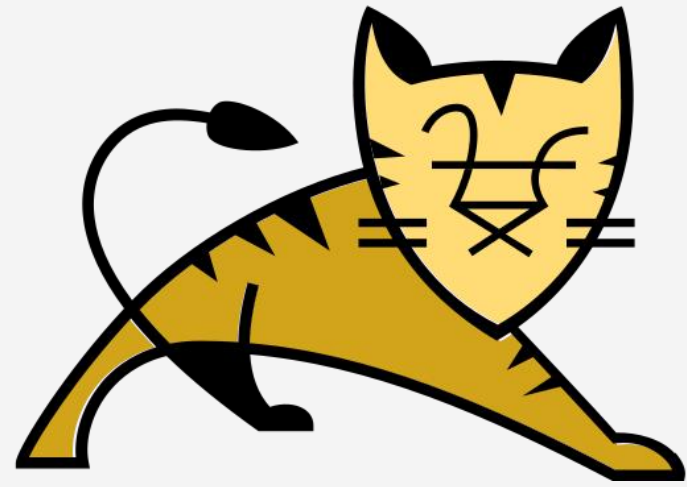
[concat] TEST-org.apache.catalina.connector.TestRequest.NIO2.txt

.....

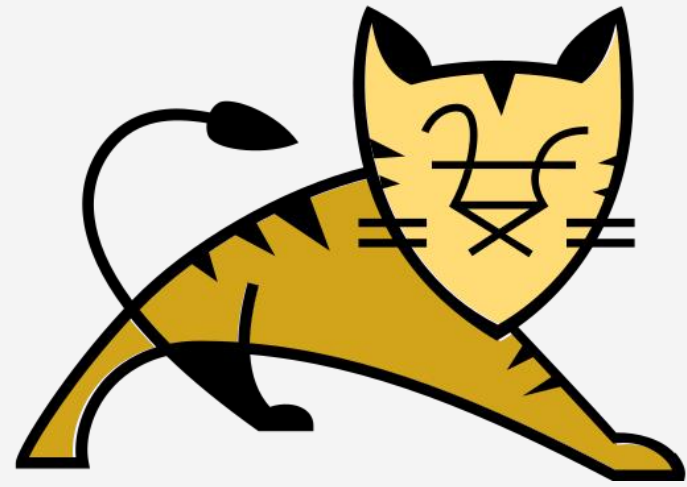
[concat] Testsuites with failed tests: <- Listed failed tests

[concat] TEST-org.apache.tomcat.util.net.TestSsl.NIO.txt

[concat] TEST-org.apache.tomcat.util.net.TestSsl.NIO2.txt



# Demonstration - SUCCESS



## Running a set of tests

```
> ant -Dtest.name='**/TestCookie*.java' test
```

<https://asciinema.org/a/602731>

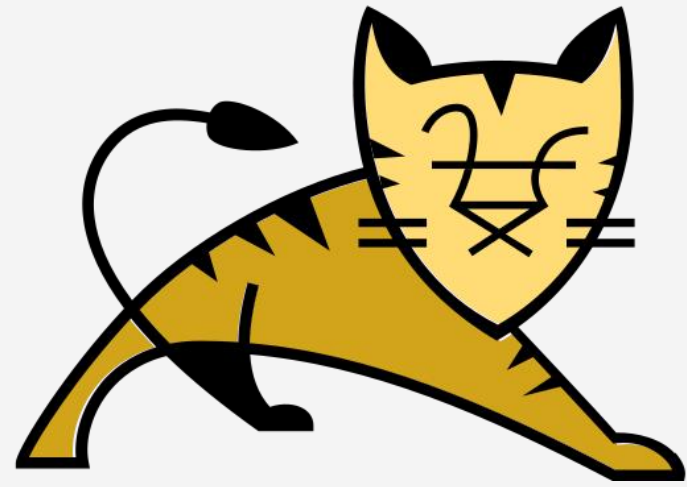
## Running a single test

```
> ant -Dtest.entry=org.apache.catalina.util.TestServerInfo \  
test
```



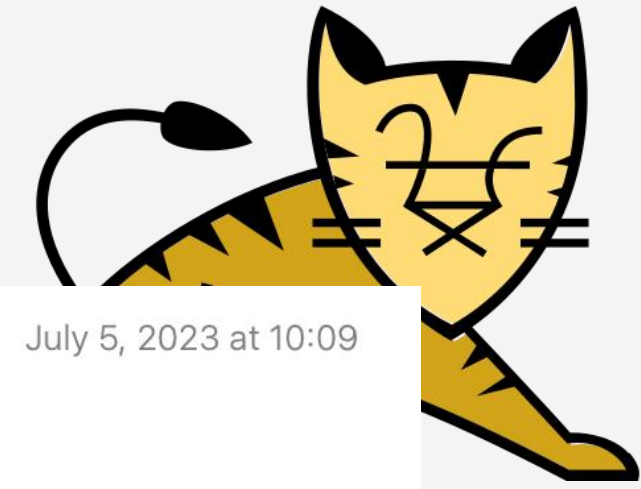


# Demonstration - FAIL



```
Restored session: Wed Aug 16 15:24:49 CST 2023
█
```

<https://asciinema.org/a/603000>



# Step 4. Reply [VOTE] thread on dev@

Tests **pass**:

check +1

Test **failed**:

check -1 & provide the following information

- your full stack trace
- your JDK version
- your OS information

**Note:** your vote will be termed “non-binding”, but will appear in the vote results. Your negative vote may block the release!

HL Han Li <lihan@apache.org> July 5, 2023 at 10:09  
Re: [VOTE] Release Apache Tomcat 11.0.0-M9  
To: Tomcat Developers List <dev@tomcat.apache.org>

On Jul 4, 2023, at 19:00, Mark Thomas <markt@apache.org> wrote:  
The proposed Apache Tomcat 11.0.0-M9 release is now available for voting.  
Apache Tomcat 11.0.0-M9 is a milestone release of the 11.0.x branch and has been made to provide users with  
See More  
de714a23642a4d0baef342db6762a7f7a550d82c  
The proposed 11.0.0-M9 release is:  
[ ] -1 Broken - do not release  
**[X] +1 Alpha - go ahead and release as 11.0.0-M9**  
Tests pass on macOS(intel)

Han

To unsubscribe, e-mail: [dev-unsubscribe@tomcat.apache.org](mailto:dev-unsubscribe@tomcat.apache.org)  
For additional commands, e-mail: [dev-help@tomcat.apache.org](mailto:dev-help@tomcat.apache.org)

MT Mark Thomas <markt@apache.org> July 11, 2023 at 01:38  
[VOTE][RESULT] Release Apache Tomcat 11.0.0-M9  
To: Tomcat Developers List <dev@tomcat.apache.org>,  
Reply-To: Tomcat Developers List <dev@tomcat.apache.org>

The following votes were cast:

Binding:  
+1: lihan, markt, remm

**Non-binding:**  
**+1: Dimitris Soumis** your name will be displayed here.

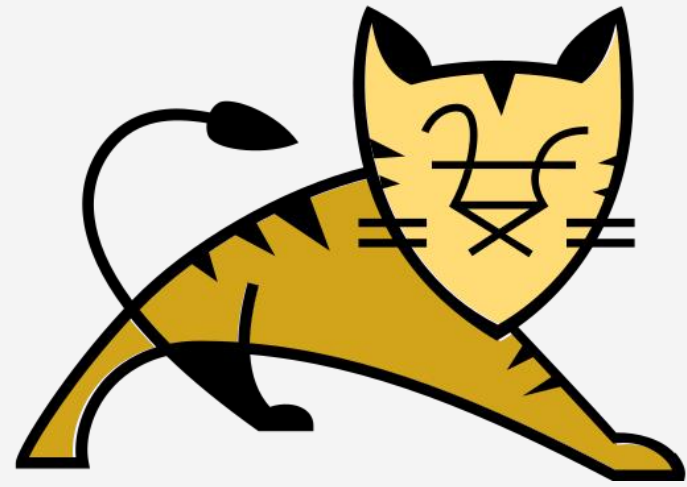
No other votes were cast.

The vote therefore passes.

Thanks to everyone who contributed to this release.

Mark

# Some settings



# Default base path for dependent packages

```
base.path=${user.home}/tomcat-build-libs
```

# Number of parallel threads to use for testing.

```
test.threads=12 (default 1)
```

# IO type to use for testing

```
execute.test.nio=true
```

```
execute.test.nio2=true
```

```
execute.test.apr=true <- Tomcat 10.1.x and 11.0.x do not require APR/native library, so no need to configure
```

# Stop testing if a failure occurs

```
test.haltonfailure=false
```

....

See [build.properties.default](#) for more



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# Thanks

Han Li(李晗)

lihan@apache.org

<https://github.com/aooohan>

WWW.COMMUNITYOVERCODE.ORG

