

Tomcat

Requirements

You need Tomcat 5.0 or later.

If using Tomcat 5.5.22 or up, you need to set the system property `org.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH` to `true` so encoded slashes are allowed.

Installation

To install Jenkins on Tomcat, simply copy `jenkins.war` to `$TOMCAT_HOME/webapps`, then access <http://yourhost/jenkins>.

If you are running Tomcat just to host Jenkins, then remove everything from `$TOMCAT_HOME/webapps`, and place `jenkins.war` as `ROOT.war` (Same case is important). Tomcat should expand this and create the `ROOT` directory, and you should see Jenkins in <http://yourhost> (if you accepted the Tomcat defaults - <http://yourhost:8080>) without any additional path. This also works nicely when you set up a virtual host, as it allows a single Tomcat instance to run multiple applications, yet users can still access your jenkins with URLs like <http://jenkins.acme.org/> without any additional path. See the Tomcat documentation for more about how to set up a virtual host.

Upgrade

Simply overwrite your `jenkins.war` with the new version. Tomcat should automatically redeploy the application.

Setting JENKINS_HOME

Before starting Tomcat, set `CATALINA_OPTS` like this. This can be also used to specify JVM options to increase the heap size:

```
$ export CATALINA_OPTS="-DJENKINS_HOME=/path/to/jenkins_home/ -Xmx512m"
$ catalina.sh start
```

Or if that fails for some reason, you should still be able to use the environment variable:

```
$ export JENKINS_HOME=/path/to/jenkins_home/
$ catalina.sh start
```

Or in the Tomcat context descriptor of the servlet, which allows a different setting per servlet:

```
<Context ...>
  <Environment name="JENKINS_HOME" value="/path/to/jenkins_home/" type="
java.lang.String"/>
</Context>
```

Securing Jenkins on Tomcat

Tomcat by default stores the user database in an XML file called `$TOMCAT_HOME/conf/tomcat-users.xml`. You can add the following lines to this file to create an admin user.

```
<role rolename="admin"/>
<user username="jenkins-admin" password="secret" roles="admin"/>
```

i18n

Some versions of Tomcat (such as 5.0.28) uses iso-8859-1 to decode URLs, which is in a clear violation of the relevant RFCs. To fix this problem, add the following `URIEncoding` attribute to the connector definition in `$TOMCAT_HOME/conf/server.xml`.

```
<Connector port="8080" URIEncoding="UTF-8" />
```

Other people reported that a presence of `RequestDumperValve` would also cause a problem.

Related reads

1. Similar instruction for Confluence (<http://confluence.atlassian.com/display/DOC/Configuring+Tomcat's+URI+encoding>)
2. [John O'Conner's blog entry about his experiment](#). See [Elliote\(id:elharo\)'s comment](#) in particular,

Relevant Issues

See the [list of issues](#) filed that are specifically marked relevant to Tomcat.

There is also a [known issue](#) in Tomcat 6.0.21 to 6.0.26 that may cause some requests to hang.

Tomcat from XAMPP

If you are using XAMPP's tomcat installation, and you have Java > 1.5, then you need to remove the following jars from the `common\lib` directory, otherwise you will get `FileNotFoundException` exceptions from the `changelog.xml` generator:

```
xalan.jar  
xercesImpl.jar  
xercesSamples.jar
```

Tomcat from Ubuntu

If you get Tomcat from Ubuntu via `apt-get`, Jenkins will report an error citing the security permission issue. This is because Tomcat in Ubuntu comes with the security manager on by default. This can be disabled by modifying `/etc/default/tomcat5` (version number will be different depending on which version of Tomcat you install.) See [JENKINS-719](#) for more details.

Tomcat from Debian

Fix security issues adding the next lines at `/etc/tomcat5.5/policy.d/04webapps.policy`:

```
grant codeBase "file:/var/lib/tomcat5.5/webapps/jenkins/-" {  
    permission java.security.AllPermission;  
};
```

Set Jenkins home at file `/etc/default/tomcat5.5`:

```
CATALINA_OPTS="-DJENKINS_HOME=/var/lib/tomcat5.5/webapps/jenkins/"
```

Tomcat from Windows

GUI Testing in Windows

Most Windows services -- including those run with the option "Allow service to interact with desktop" in Windows XP and Vista -- do not have access to many of the computer's resources, including the console display. This may cause Automated GUI Tests to fail if you are running

Apache Tomcat as a Windows Service and are doing any GUI testing. This is true at least for AWT and Abbot frameworks. A typical error might look similar to this:

```
[junit] \# An unexpected error has been detected by HotSpot Virtual
Machine:
[junit] \#
[junit] \# EXCEPTION_ACCESS_VIOLATION (0xc0000005) at pc=0x6d07baf4,
pid=3260, tid=288
[junit] \#
[junit] \# Java VM: Java HotSpot(TM) Client VM (1.5.0_09-b03 mixed
mode, sharing)
[junit] \# Problematic frame:
[junit] \# C [awt.dll+0xbaf4|awt.dll+0xbaf4]
[junit] \#
```

This limitation can be resolved by not running Tomcat as a Windows Service, but instead through a "Scheduled Task" as an Application that runs at logon. There are several options for doing this, an example would be to run "\$TOMCAT_HOME\bin\tomcat5.exe". When setting up the scheduled task in Windows Vista consider choosing the check-box for "Run with highest privileges" from the general tab, as this removes the need to always provide administrator privileges and may resolve other issues as well.

*Note: This workaround/fix may or may not require an admin to be logged in during testing. Running your tests while logged in as a standard user this is fine, but some modifications may need to be made for your individual configuration.