

# MavenProjectServer Running Tomcat as a linux service

## Introduction

In order to Run Tomcat as a linux service, you should follow these steps:

1. #Install the wrapper service
2. #Create a tomcat environment definition script
3. #Create a tomcat launcher script
4. #Configure the wrapper service to run tomcat
5. #Link the tomcat launcher script to the init scripts directory
6. #Link the tomcat init script to the revelant init levels

## Install the wrapper service

Download the wrapper service binaries for Linux (<http://wrapper.tanukisoftware.org>)

Copy the binaries as defined in (<http://wrapper.tanukisoftware.org/doc/english/integrate-simple-nix.html>):

- copy the wrapper file in the `$(tomcat.home)/bin` directory,
- copy the `sh.script.in` file in the `{{$(tomcat.home)/bin}` directory and rename it to `tomcat`,
- copy the `wrapper.jar` file in the `$(tomcat.home)/common/lib` directory.

Edit the newly renamed `tomcat` file to ensure the following lines are defined.

```
APP_NAME="tomcat"  
APP_LONG_NAME="Tomcat Application Server"
```

Change the permissions of that file : `chmod ug+x $(tomcat.home)/bin/tomcat`

## Create a tomcat environment definition script

Create the `$(server.home)/tomcat.env` file with the following content (dont forget to expand the `$(xxx)` variables with your defined values)

```
CATALINA_HOME=$(tomcat.home)  
CATALINA_BASE=$(server.tomcat.home)  
export CATALINA_HOME CATALINA_BASE  
  
JAVA_HOME=$(java.home)  
export JAVA_HOME  
  
M2_HOME=$(m2.home)  
export M2_HOME  
  
PATH=$M2_HOME/bin:$CATALINA_HOME/bin:$JAVA_HOME/bin:$PATH  
export PATH
```

## Create a tomcat launcher script

Create the `$(server.home)/tomcat.run` file with the following content (dont forget to expand the `$(xxx)` variables with your defined values)

```
#!/bin/sh
su - msu -c "cd; . ~/tomcat.env; tomcat $1"
```

Change the permissions of that file : `chmod ug+x $(server.home)/tomcat.run`

## Configure the wrapper service to run tomcat

Copy the file `wrapper.conf.in` from the wrapper service distribution to the `$(tomcat.home)/conf` directory

Ensures its content is (dont forget to expand the `$(xxx)` variables with your defined values)

```

wrapper.java.command=%JAVA_HOME%/bin/java
wrapper.java.mainclass=org.tanukisoftware.wrapper.WrapperStartStopApp
wrapper.java.classpath.1=$(tomcat.home)/common/lib/wrapper.jar
wrapper.java.classpath.2=%JAVA_HOME%/lib/tools.jar
wrapper.java.classpath.3=/$(tomcat.home)/bin/bootstrap.jar
wrapper.java.classpath.4=$(tomcat.home)/bin/commons-logging-api.jar
wrapper.java.library.path.1=$(tomcat.home)/common/lib
wrapper.java.additional.1=-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogMa
nager
wrapper.java.additional.2=-Djava.util.logging.config.file=$(server.tomcat.base)/conf/l
ogging.properties
wrapper.java.additional.3=-Djava.endorsed.dirs=$(tomcat.home)/common/endorsed
wrapper.java.additional.4=-Dcatalina.base=$(server.tomcat.base)
wrapper.java.additional.5=-Dcatalina.home=$(tomcat.home)
wrapper.java.additional.6=-Djava.io.tmpdir=$(server.tomcat.base)/temp
wrapper.java.additional.7=-d64
wrapper.java.additional.8=-server
wrapper.java.additional.9=-Xincgc
wrapper.java.additional.10=-Xms128m
wrapper.java.additional.11=-Xmx512m
wrapper.java.additional.12=-Xss256m
wrapper.java.additional.13=-XX:MaxPermSize=256m
wrapper.app.parameter.1=org.apache.catalina.startup.Bootstrap
wrapper.app.parameter.2=1
wrapper.app.parameter.3=start
wrapper.app.parameter.4=org.apache.catalina.startup.Bootstrap
wrapper.app.parameter.5=true
wrapper.app.parameter.6=1
wrapper.app.parameter.7=stop

wrapper.console.format=PM
wrapper.console.loglevel=INFO
wrapper.logfile=./logs/wrapper.log
wrapper.logfile.format=LPTM
wrapper.logfile.loglevel=INFO
wrapper.logfile.maxsize=0
wrapper.logfile.maxfiles=0
wrapper.syslog.loglevel=NONE
wrapper.console.title=@app.long.name@
wrapper.ntservice.name=@app.name@
wrapper.ntservice.displayname=@app.long.name@
wrapper.ntservice.description=@app.description@
wrapper.ntservice.dependency.1=
wrapper.ntservice.starttype=AUTO_START
wrapper.ntservice.interactive=false

```

As a tip to ensure Tomcat is not using too much memory, remove the default applications from your tomcat and only keep the tomcat manage servlet (with a properly defined user)

## Link the tomcat launcher script to the init scripts directory

To perform this action you should be logged as root.

Execute the command `ln -s $(server.home)/tomcat.run /etc/init.d/tomcat.`

Ensure Tomcat can be run with `/etc/init.d/tomcat start.`

Verify Tomcat is running with `ps axfu | grep tomcat`. The tomcat process should be run by MSU

Test Tomcat by pointing your web browser to <http://localhost:8080/>

## Link the tomcat init script to the relevant init levels

To perform this action you should be logged as root.

Execute the commands `ln -s /etc/rc3.d/S99tomcat /etc/init.d/tomcat` and `ln -s /etc/init.d/K99tomcat /etc/init.d/tomcat`

Verify with the same method as above after rebooting your server to ensure tomcat is run as a service.