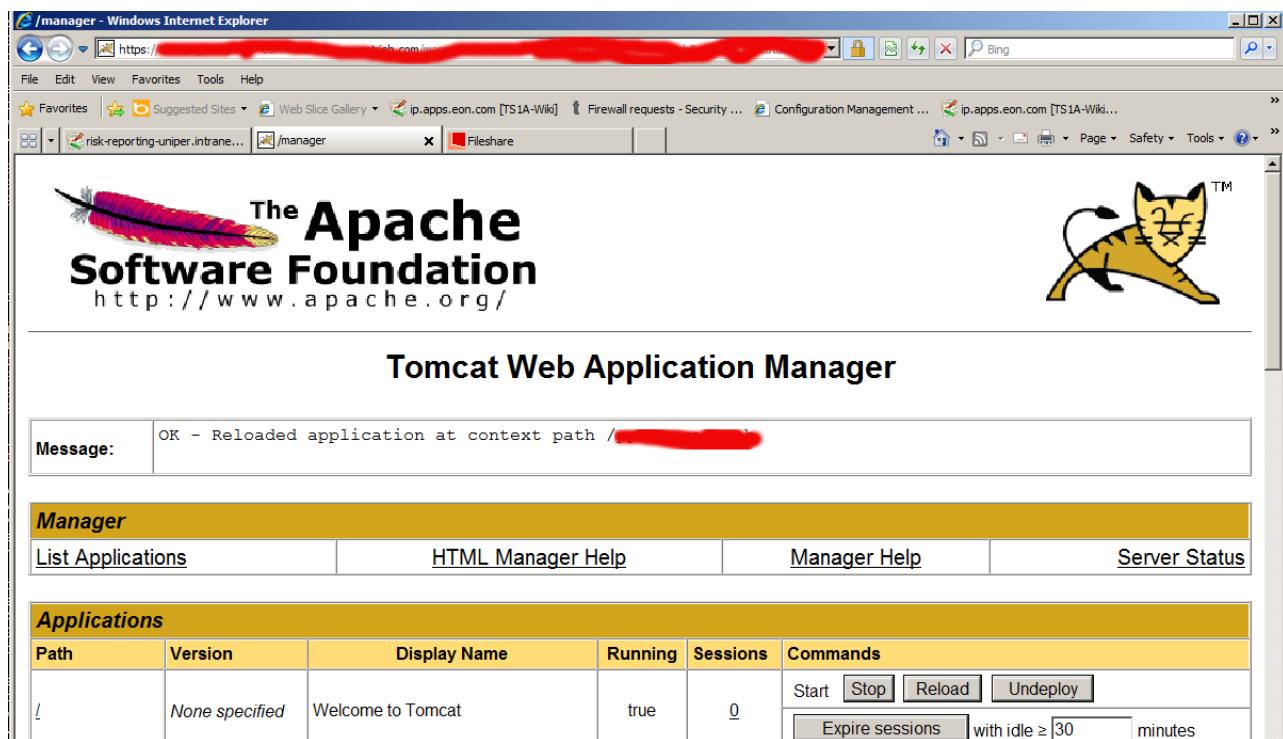


Fix "FAIL - Application at context path /application-name could not be started" deployment error in Tomcat manager

Author : admin



The screenshot shows a Windows Internet Explorer window displaying the Tomcat Web Application Manager. At the top, there's a banner for 'The Apache Software Foundation' with their logo. Below the banner, the title 'Tomcat Web Application Manager' is centered. A message box displays 'OK - Reloaded application at context path /[REDACTED]'. The main interface has tabs for 'Manager', 'List Applications', 'HTML Manager Help', 'Manager Help', and 'Server Status'. Under the 'Applications' section, there's a table with one row. The table columns are 'Path', 'Version', 'Display Name', 'Running', 'Sessions', and 'Commands'. The single entry is '/' with 'None specified' under Version, 'Welcome to Tomcat' under Display Name, 'true' under Running, '0' under Sessions, and 'Start', 'Stop', 'Reload', 'Undeploy', and 'Expire sessions' under Commands.

While deploying an environment called "Interim" which is pretty much like a testing **Java application deployed from a Java EAR (Enterprise Archive) file** from within a Tomcat Manager GUI web interface after stopping the application and trying to start it, the developers come across the error:

FAIL - Application at context path /application-name could not be started

The error puzzled me for a while until I checked the **catalina.out** I've seen a number of thrown **Java Exceptions errors** like:

Okt 01, 2015 10:48:46 AM org.springframework.web.context.ContextLoader
initWebApplicationContext

Schwerwiegend: Context initialization failed

org.springframework.beans.factory.BeanCreationException: Error creating bean with
name 'com.sun.xml.ws.transport.http.servlet.SpringBinding#2' defined in ServletContex
t resource [/WEB-INF/pp-server-beans.xml]: Cannot create inner bean '(inner bean)' of
type [org.jvnet.jax_ws_commons.spring.SpringService] while setting bean property
'service'; nested exception is org.springframework.beans.factory.BeanCreationException:
Error creating bean with name '(inner bean)#33': FactoryBean threw exception on
object creation; nested exception is **java.lang.OutOfMemoryError: PermGen space**

I've googled a bit about the error:

"FAIL - Application at context path /application-name could not be started"

and come across this [Stackoverflow thread](#) and followed suggested solution to fix **web.xml** tag closing
error but it seems there was no such error in my case, I then also tried solution suggested by [this thread](#)
(e.g. adding in **logging.properties**) file:

```
org.apache.catalina.core.ContainerBase.[Catalina].level = INFO
org.apache.catalina.core.ContainerBase.[Catalina].handlers =
java.util.logging.ConsoleHandler
```

**unfortunately this helped neither to solve the error when it is tried to be started from tomcat
manager.**

After asking for help a colleague Kostadin, he pointed me to take a closer look in the error (which is a

clear indication) that the reserved space is not enough (see below err):

```
java.lang.OutOfMemoryError: PermGen space
```

And he pointed me then to Solution (which is to **modify the present tomcat *setenv.sh***) settings which looked like this:

Heap size settings

```
export JAVA_OPTS="-Xms2048M -Xmx2048M"
```

SSCO test page parameter

```
export JAVA_OPTS="$JAVA_OPTS -DTSIA_TESTSEITE_CONFIG_PATH=test-myapplication.com"
```

Default garbage collector settings

```
export JAVA_OPTS="$JAVA_OPTS -XX:MaxPermSize=128M"
```

Aggressive garbage collector settings.

Do not use! For testing purposes only!

```
#export JAVA_OPTS="$JAVA_OPTS -Xss128k -XX:ParallelGCThreads=20
-XX:+UseConcMarkSweepGC -XX:+UseParNewGC -XX:SurvivorRatio=8
-XX:TargetSurvivorRatio=90 -XX:MaxTenuringThreshold=31 -XX:+AggressiveOpts
-XX:MaxPermSize=128M"
```

DO NOT CHANGE BELOW HERE

Disable X11 usage

unset DISPLAY

export JAVA_OPTS="\$JAVA_OPTS -Djava.awt.headless=true"

Garbage collection log settings

*export JAVA_OPTS="\$JAVA_OPTS -verbose:gc -XX:+PrintGCTimeStamps
-XX:+PrintGCDetails -Xloggc:/web/tomcat/current/logs/gc.log -XX:-TraceClassUnloading"*

Enable JMX console

export JAVA_OPTS="\$JAVA_OPTS -Dcom.sun.management.jmxremote"

The solution is to add following two options to **export JAVA_OPTS** (above options):

-XX:PermSize=512m -XX:MaxPermSize=512m

After modifications, my new line within **setenv.sh** looked like so:

```
JAVA_OPTS="-Xms2048M -Xmx2048M -XX:PermSize=512m -XX:MaxPermSize=512m"
```

Finally to make new *JAVA_OPTS* settings, I've restarted Tomcat with:

```
cd /web/tomcat/bin/  
./shutdown.sh  
sleep 5; ./startup.sh
```

And hooray it works fine thanks God! :)