

# **WA1755 Introduction to Java and Java Enterprise Using Eclipse and JBoss**

## **Classroom Setup Guide**

**Web Age Solutions Inc.**

## Table of Contents

Classroom Requirements.....	3
Part 1 - Minimum Hardware Requirements .....	3
Part 2 - Minimum Software Requirements .....	3
Part 3 - Software Provided.....	4
Part 4 - Important Ghosting or Imaging Information.....	5
Software Installation.....	6
Part 1 - Preparation.....	6
Part 2 - Installing JDK 6 Update 10.....	7
Part 3 - Verification of Eclipse JEE Ganymede SR1.....	19
Part 4 - Verification of JBoss Application Server 4.2.3 GA JDK6.....	21

## **Classroom Requirements**

### **Part 1 - Minimum Hardware Requirements**

- 2 Ghz Pentium IV
- 512 MB RAM minimum, 1 GB recommended
- 8 GB in the hard disk
- Network connection
- Internet connection
- USB Port

### **Part 2 - Minimum Software Requirements**

- Microsoft Windows 2000 SP4, Windows XP SP2
- Internet Explorer 6.0
- WinZip 8.0
- JDK 6.0 Update 10\*
- Eclipse JEE Ganymede SR1 \*
- JBoss Application Server 4.2.3 GA JDK6\*

\* - indicates software provided as part of the courseware.

### **Part 3 - Software Provided**

You will receive one USB memory stick containing the following file:

- WA1755.ZIP

All other software listed under Minimum Software Requirements is either commercially licensed software that you must provide or software that is freely available off the Internet.

## **Part 4 - Important Ghosting or Imaging Information**

The software for this course can be ghosted.

## Software Installation

### Part 1 - Preparation

\_\_1. From the USB memory stick, extract the **WA1755.ZIP** file to C:\

\_\_2. Review that the following folders were created:

- **C:\Software**
- **C:\Software\eclipse**
- **C:\Software\jboss-4.2.3.GA**
- **C:\LabFiles**

\_\_3. Review that the following file was created:

- **C:\Software\jdk-6u10-windows-i586-p.exe**

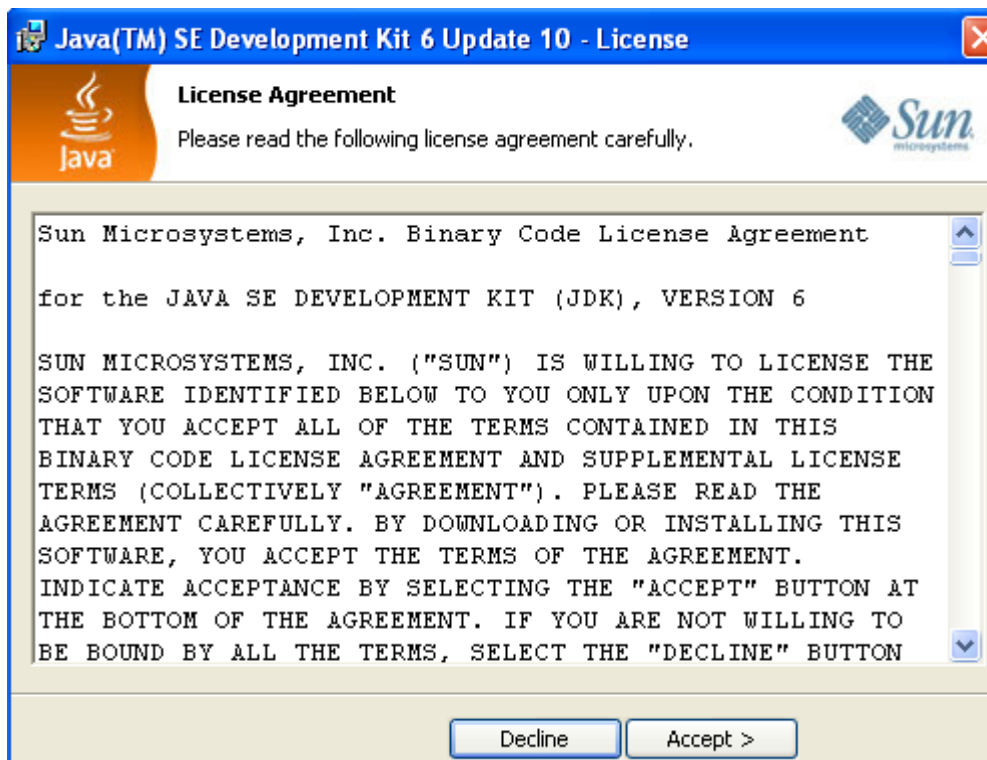
## Part 2 - Installing JDK 6 Update 10

\_\_1. Make sure there is no previous Java version already installed on the system. You can check this by using the Windows “Add/Remove Programs” utility. For the best compatibility with the labs it is suggested that all previous versions of Java be uninstalled before proceeding with these instructions. If this is an issue, please contact the setup support person for the course.

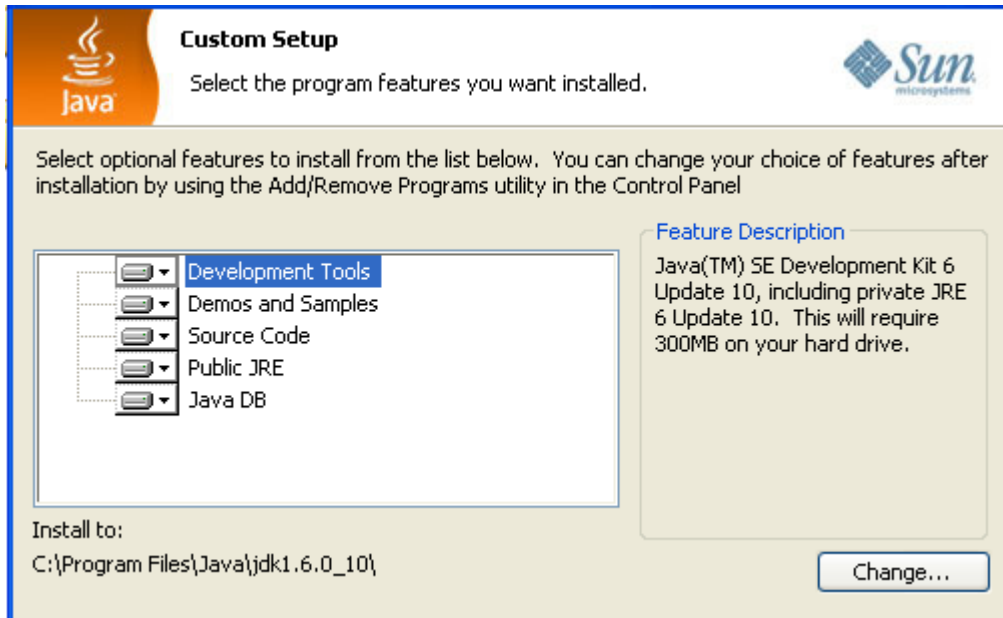
\_\_2. From the **C:\Software** directory run the following file:

`jdk-6u10-windows-i586-p.exe`

\_\_3. After a few moments the license agreement will appear. Press the **Accept** button to move to the next step.



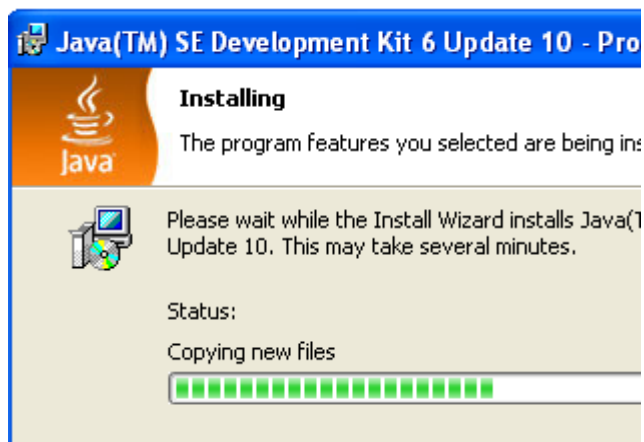
4. Leave the defaults for installation location and options, and press the **Next** button.



**Note:** The installation directory may be slightly different. The list of features may not include 'Java DB' but this is OK.

Install to:  
C:\Program Files (x86)\Java\jdk1.6.0\_10\

The installation will begin installing files.

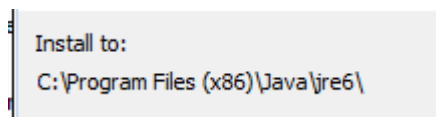




\_\_5. The Destination Folder will appear, leave the default folder and click **Next**.



**Note:** The installation directory may be slightly different.



Wait until the software is completely installed.

\_\_6. Click **Finish**.



\_\_7. Close any browser that appears asking to register the JDK software.

### **Set the Environment variables.**

\_\_1. Open a Command Prompt. You can do this with '**Start → Programs → Accessories → Command Prompt**'.

\_\_2. Use the 'cd' command to attempt to switch to the following directory. This will verify the presence of a directory used later so make sure you do not get any errors about not being able to “find the path specified”.

```
cd C:\Progra~1\Java\jdk1.6.0_10
```

```
C:\Documents and Settings\Student>cd C:\Progra~1\Java\jdk1.6.0_10
C:\PROGRA~1\Java\jdk1.6.0_10>_
```

**Note:** On a Windows Vista/7 setup the installation directory may be slightly different. You may need to use the following directory instead of the one listed above:

```
C:\Progra~2\Java\jdk1.6.0_10
```

```
C:\Users\AdminUser>cd C:\Progra~2\Java\jdk1.6.0_10
C:\PROGRA~2\Java\jdk1.6.0_10>_
```

Some of the remaining steps will use the slightly different directory.

\_\_3. From **Start > Control Panel**, double click on **System**.

**Note:** If the "Classic" control panel is not displayed you might need to click the "System and Maintenance" link.

\_\_4. If using Windows Vista click the link for "Advanced System Settings".

\_\_5. Select the **Advanced** tab.

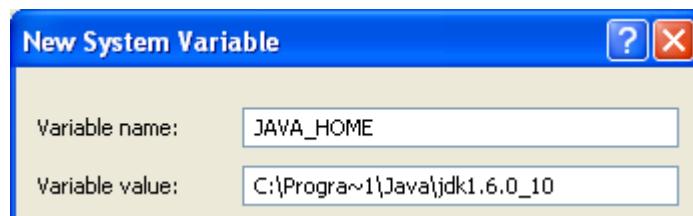
\_\_6. Click the **Environment Variables** button.

\_\_7. Under the System Variables list, click the **New** button.

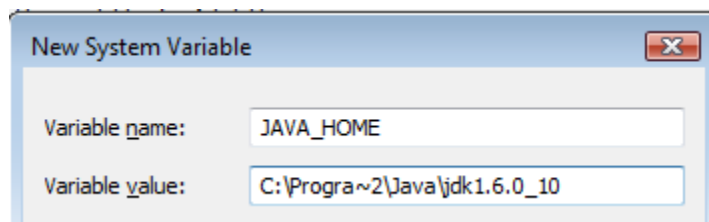
\_\_8. Enter **JAVA\_HOME** as Variable name.

\_\_9. As Variable value enter the following. This should be the value you verified in earlier steps.

`C:\Progra~1\Java\jdk1.6.0_10`



**Note:** If you are using a 64-bit OS use 'C:\Progra~2\Java\jdk1.6.0\_10' instead.

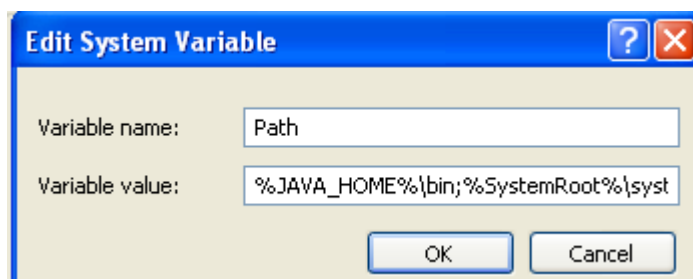


\_\_10. Click **OK** to create the variable.

\_\_11. From the *System Variables* list, select **Path** and click **Edit**.

\_\_12. At the beginning of the line enter the following. Make sure to include the semi-colon on the end:

`%JAVA_HOME%\bin;`



\_\_13. Click **OK**.

\_\_14. Click **OK** to close the *Environment Variables* window.

\_\_15. Click **OK** to close the *System Properties* window.

## Verification of JDK 6 Update 10

\_\_1. Open a Windows command prompt. You can do this by selecting 'Start -> Run', entering 'cmd', and then pressing the **OK** button.

\_\_2. Enter the following command:

```
java -version
```

Make sure you see the response shown below.

```
C:\Documents and Settings\Student>java -version
java version "1.6.0_10"
Java(TM) SE Runtime Environment (build 1.6.0_10-b33)
Java HotSpot(TM) Client VM (build 11.0-b15, mixed mode, sharing)
```

\_\_3. Enter the following command:

```
javac
```

Verify that you get the options to run the Java compiler:

```
C:\Documents and Settings\Student>javac
Usage: javac <options> <source files>
where possible options include:
  -g                Generate all debugging info
  -g:none           Generate no debugging info
  -g:<lines,vars,source> Generate only some debugging info
  -nowarn           Generate no warnings
  -verbose          Output messages about what the compiler is doing
  -deprecation      Output source locations where deprecated APIs are found
  -classpath <path> Specify where to find user class files and annotations processors
  -cp <path>        Specify where to find user class files and annotations processors
  -sourcepath <path> Specify where to find input source files
  -bootclasspath <path> Override location of bootstrap class files
  -extdirs <dirs>   Override location of installed extensions
```

\_\_4. Close the command prompt window and any extra windows that are open.

JDK 6 Update 10 is now installed!

## Part 3 - Verification of Eclipse JEE Ganymede SR1

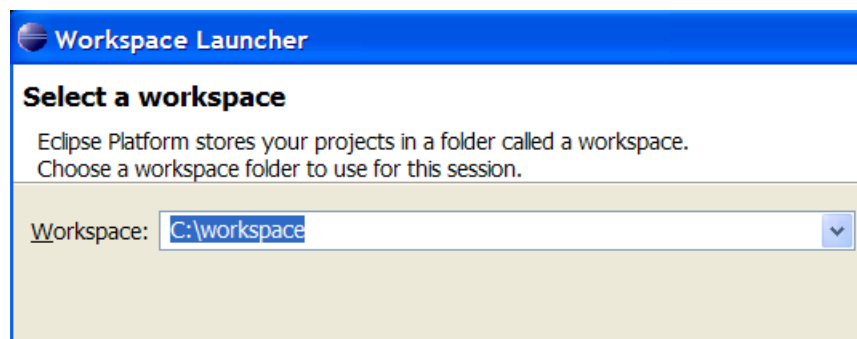
\_\_1. Run `C:\Software\eclipse\eclipse.exe`

Eclipse Ganymede will start.



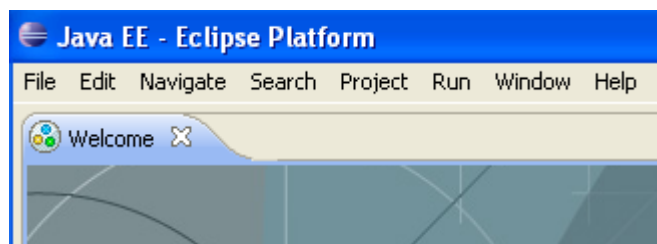
\_\_2. A Workspace Launcher dialog will appear. Change the workspace directory to:

`c:\workspace`



\_\_3. Click **OK**.

Eclipse will open showing the Welcome page.



\_\_4. Close the *Eclipse welcome* page by clicking the X at top left.

\_\_5. From the menu, select **File** > **Exit** to close Eclipse.

Eclipse JEE Ganymede is working fine.

## Part 4 - Verification of JBoss Application Server 4.2.3 GA JDK6

\_\_1. Open a command prompt window.

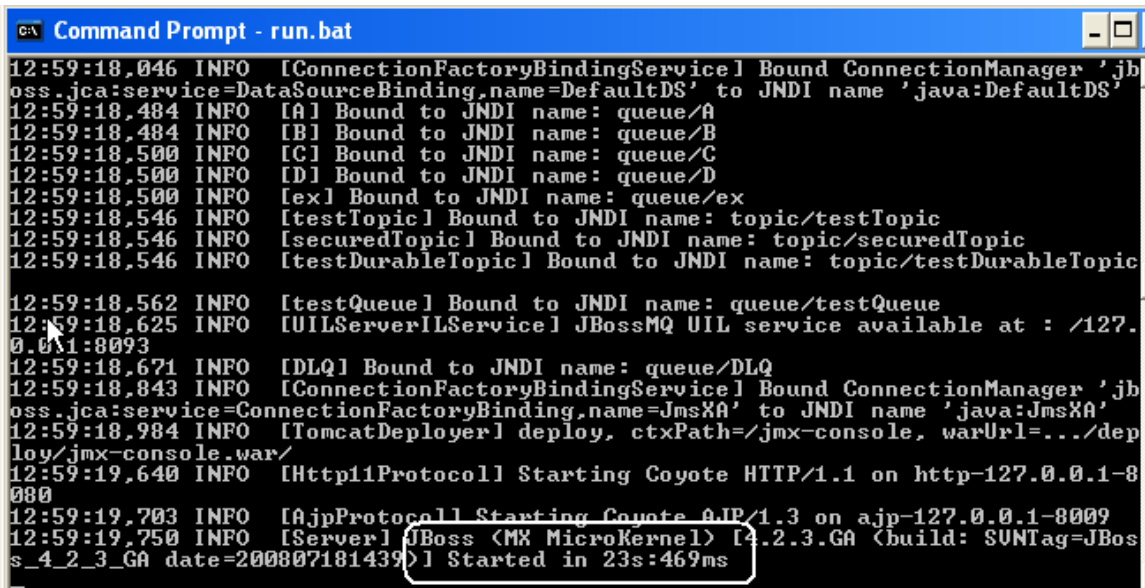
\_\_2. Change to the following folder:

**C:\Software\jboss-4.2.3.GA\bin**

\_\_3. Enter the command:

**run.bat**

\_\_4. JBoss will start after some second the Started message will appear.



```
12:59:18,046 INFO [ConnectionFactoryBindingService] Bound ConnectionManager 'jboss.jca:service=DataSourceBinding,name=DefaultDS' to JNDI name 'java:DefaultDS'
12:59:18,484 INFO [A] Bound to JNDI name: queue/A
12:59:18,484 INFO [B] Bound to JNDI name: queue/B
12:59:18,500 INFO [C] Bound to JNDI name: queue/C
12:59:18,500 INFO [D] Bound to JNDI name: queue/D
12:59:18,500 INFO [ex] Bound to JNDI name: queue/ex
12:59:18,546 INFO [testTopic] Bound to JNDI name: topic/testTopic
12:59:18,546 INFO [securedTopic] Bound to JNDI name: topic/securedTopic
12:59:18,546 INFO [testDurableTopic] Bound to JNDI name: topic/testDurableTopic
12:59:18,562 INFO [testQueue] Bound to JNDI name: queue/testQueue
12:59:18,625 INFO [UILServerILService] JBossMQ UIL service available at : /127.0.0.1:8093
12:59:18,671 INFO [DLQ] Bound to JNDI name: queue/DLQ
12:59:18,843 INFO [ConnectionFactoryBindingService] Bound ConnectionManager 'jboss.jca:service=ConnectionFactoryBinding,name=JmsXA' to JNDI name 'java:JmsXA'
12:59:18,984 INFO [TomcatDeployer] deploy, ctxPath=/jmx-console, warUrl=../deploy/jmx-console.war/
12:59:19,640 INFO [Http11Protocol] Starting Coyote HTTP/1.1 on http-127.0.0.1-8080
12:59:19,703 INFO [AjpProtocol] Starting Coyote AJP/1.3 on ajp-127.0.0.1-8009
12:59:19,750 INFO [Server] JBoss (MX MicroKernel) [4.2.3.GA (build: SUNTag=JBoss_4_2_3_GA date=200807181439)] Started in 23s:469ms
```

\_\_5. Open another command prompt window.

\_\_6. Change to the following folder:

**C:\Software\jboss-4.2.3.GA\bin**

\_\_7. Enter the command:

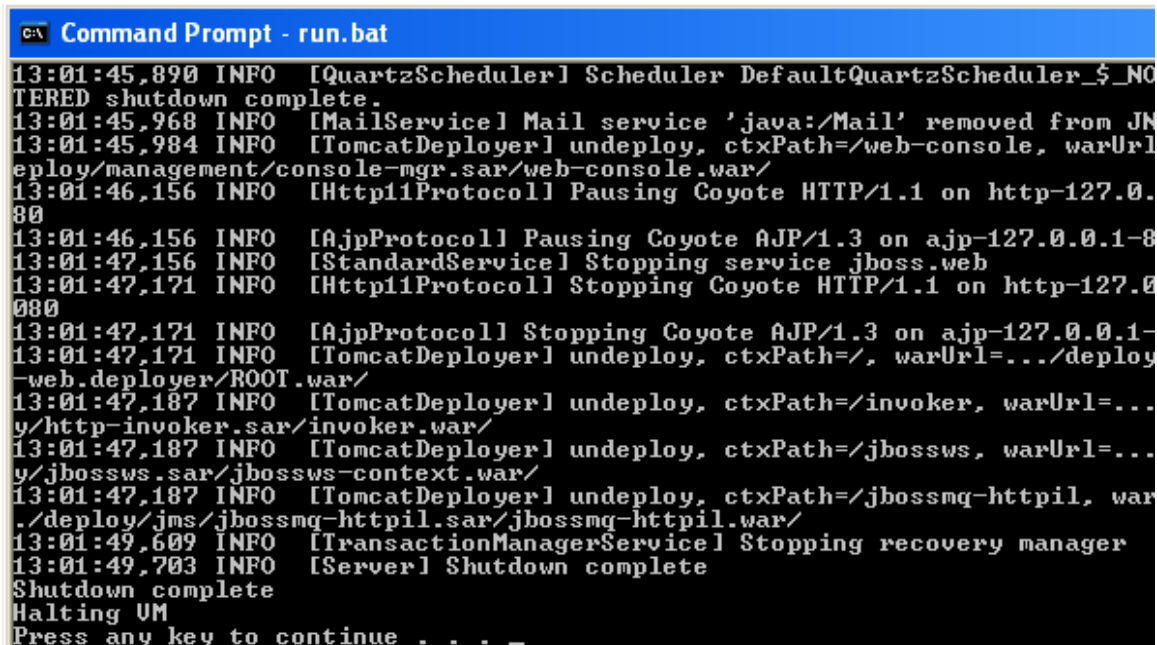
## shutdown -S

JBoss will stop

```
C:\jboss-4.2.3.GA\bin>shutdown -S
Shutdown message has been posted to the server.
Server shutdown may take a while - check logfiles for completion
Press any key to continue . . .
```

\_\_8. Press any key in the command prompt window.

\_\_9. Switch to the first command prompt window. JBoss will shutdown. Click any key there too.



```
Command Prompt - run.bat
13:01:45,890 INFO [QuartzScheduler] Scheduler DefaultQuartzScheduler_$_NO
TERED shutdown complete.
13:01:45,968 INFO [MailService] Mail service 'java:/Mail' removed from JM
13:01:45,984 INFO [TomcatDeployer] undeploy, ctxPath=/web-console, warUrl
deploy/management/console-mgr.sar/web-console.war/
13:01:46,156 INFO [Http11Protocol] Pausing Coyote HTTP/1.1 on http-127.0.
80
13:01:46,156 INFO [AjpProtocol] Pausing Coyote AJP/1.3 on ajp-127.0.0.1-8
13:01:47,156 INFO [StandardService] Stopping service jboss.web
13:01:47,171 INFO [Http11Protocol] Stopping Coyote HTTP/1.1 on http-127.0.
080
13:01:47,171 INFO [AjpProtocol] Stopping Coyote AJP/1.3 on ajp-127.0.0.1-
13:01:47,171 INFO [TomcatDeployer] undeploy, ctxPath=/, warUrl=.../deploy
-web.deployer/ROOT.war/
13:01:47,187 INFO [TomcatDeployer] undeploy, ctxPath=/invoker, warUrl=...
y/http-invoker.sar/invoker.war/
13:01:47,187 INFO [TomcatDeployer] undeploy, ctxPath=/jbossws, warUrl=...
y/jbossws.sar/jbossws-context.war/
13:01:47,187 INFO [TomcatDeployer] undeploy, ctxPath=/jbossmq-httpil, war
./deploy/jms/jbossmq-httpil.sar/jbossmq-httpil.war/
13:01:49,609 INFO [TransactionManagerService] Stopping recovery manager
13:01:49,703 INFO [Server] Shutdown complete
Shutdown complete
Halting UM
Press any key to continue . . .
```

\_\_10. Close all the commands prompts open.

JBoss Application Server 4.2.3 GA JDK6 is working fine.