

WA1713 Java EE 5 Patterns and Best Practices

Classroom Setup Guide

Web Age Solutions Inc.

Table of Contents

Part 1 - Minimum Hardware Requirements	3
Part 2 - Minimum Software Requirements	3
Part 3 - Software Provided.....	3
Part 4 - Instructions.....	4
Part 5 - Installing JDK 6 Update 10.....	4
Part 6 - Verification of Eclipse JEE Galileo.....	10
Part 7 - Verification of JBoss Application Server 5.0.1 GA JDK6.....	12

Part 1 - Minimum Hardware Requirements

- 1.8 GHz Pentium IV
- 512 MB RAM minimum, 1 GB recommended
- 8 GB in the hard disk
- USB port

Part 2 - Minimum Software Requirements

- Microsoft Windows 2000 SP4, Windows XP SP2
 - Internet Explorer 6.0
 - Zip file extraction utility
 - JDK 6.0 Update 10*
 - Eclipse JEE Galileo *
 - JBoss Application Server 5.0.1.GA JDK6 *
 - Open EJB 3.1.2 *
 - DBUnit 2.4.6 *
 - ICEFaces 1.8.2 *
 - Apache JMeter 2.3.4 *
- * - indicates software provided as part of the courseware.

Part 3 - Software Provided

Number of USB memory sticks that you will receive: **1**

Name of the files containing in the memory sticks (one file per memory stick):

- **WA1713.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 - Instructions

__1. From the USB memory stick, extract the **WA1713.ZIP** file to **C:**

__2. Review that the following folders were created:

- **C:\Software**
- **C:\Software\DBUnit**
- **C:\Software\eclipse**
- **C:\Software\ICEfaces-1.8.2-bin**
- **C:\Software\jakarta-jmeter-2.3.4**
- **C:\Software\jboss-5.0.1.GA**
- **C:\Software\openejb-3.1.2**
- **C:\LabFiles**

__3. Review that the following file was created:

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

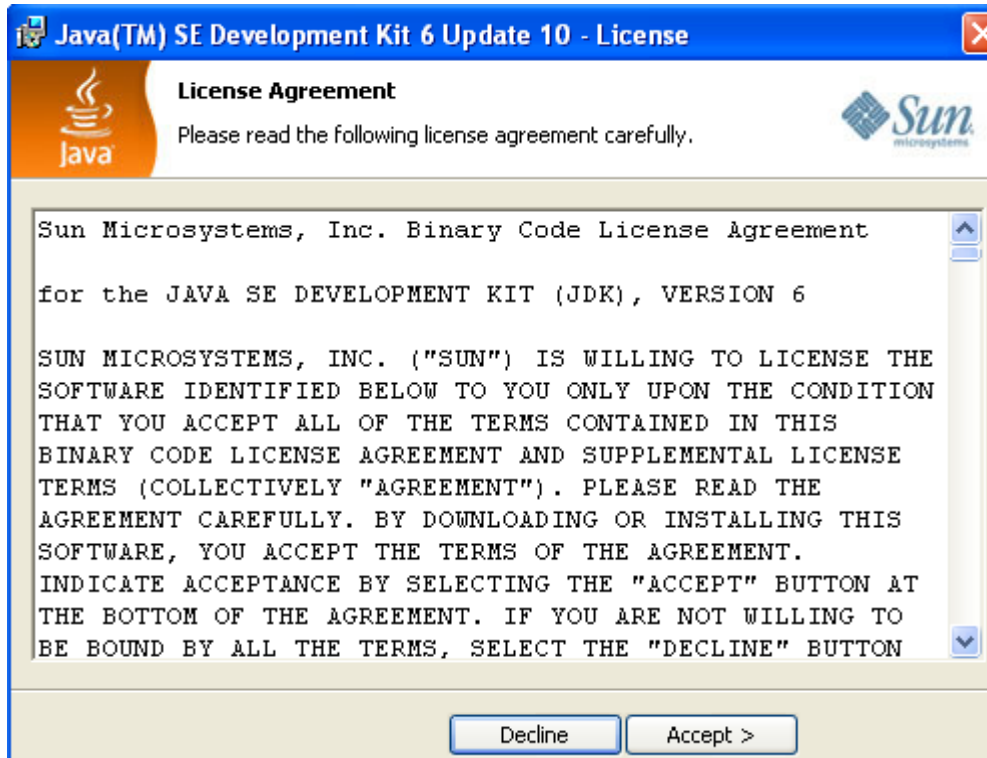
Part 5 - Installing JDK 6 Update 10

__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.

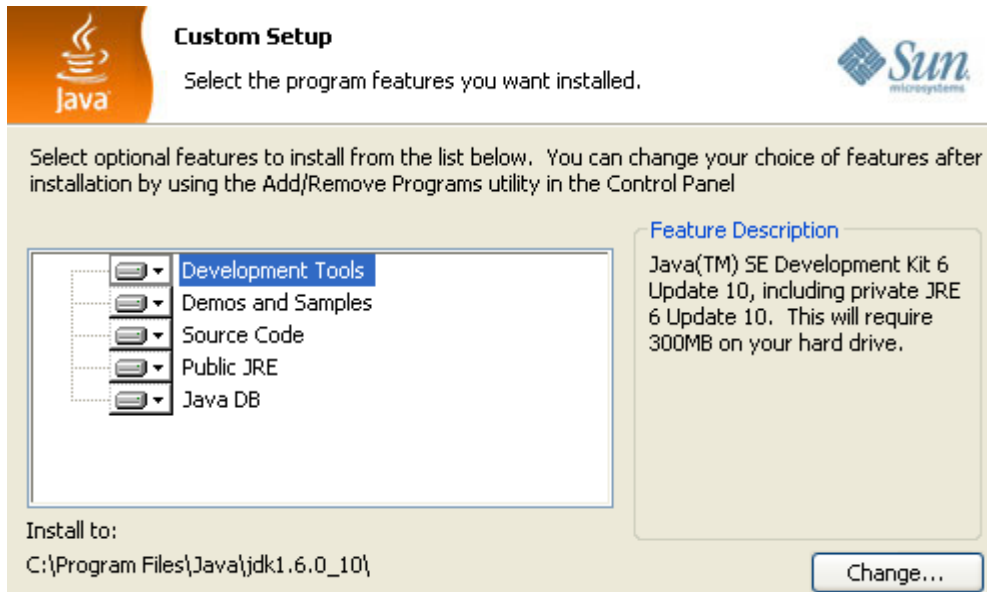
__2. From the **C:\Software** directory run the following file:

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

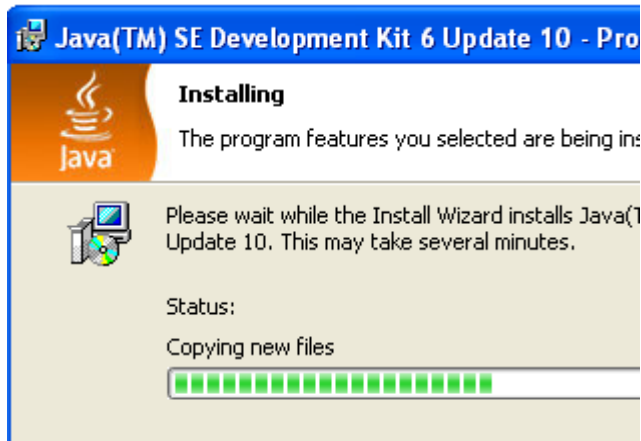
3. After a few moments the license agreement will appear. Press the **Accept** button to move to the next step.



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



The installation will begin installing files.



__5. The Destination Folder will appear, leave the default folder and click **Next**.



__6. Wait until the software is installed.

__7. Click **Finish**.



__8. Close any browser that appears asking to register the JDK software.

Set the Environment variables.

__1. From **Start > Control Panel**, double click on **System**.

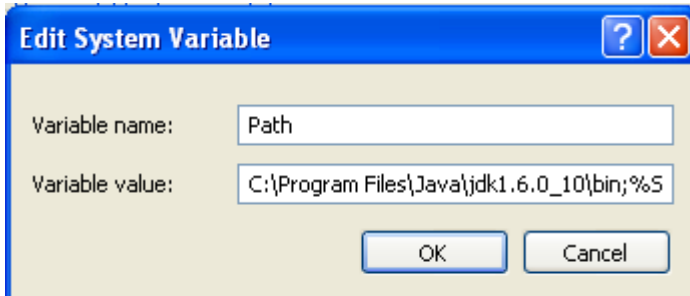
__2. Select the **Advanced** tab.

__3. Click the **Environment Variables** button.

__4. From the *System Variables* list, select **Path** and click **Edit**.

__5. At the beginning of the line enter the following:

C:\Program Files\Java\jdk1.6.0_10\bin;



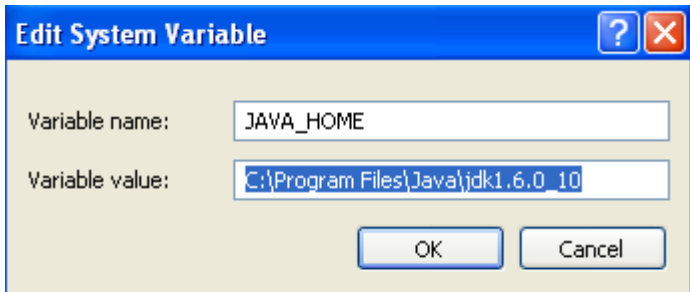
__6. Click **OK**.

__7. Under the System Variables list, click the **New** button.

__8. Enter **JAVA_HOME** as Variable name.

__9. As Variable value enter the following:

C:\Program Files\Java\jdk1.6.0_10



__10. Click **OK** to create the variable.

__11. Click **OK** to close the *Environment Variables* window.

__12. Click **OK** to close the *System Properties* window.

__13. Restart the computer.

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\wasadmin>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\wasadmin>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 used
  -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
  -endorseddirs <dirs> Override location of endorsed standards path
```

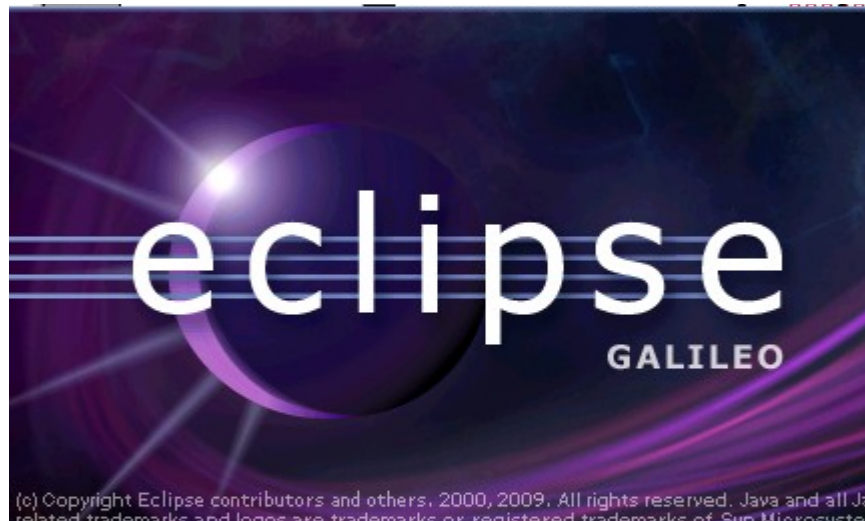
__4. Close the command prompt window and any extra windows that are open.

JDK 6 Update 10 is installed!

Part 6 - Verification of Eclipse JEE Galileo

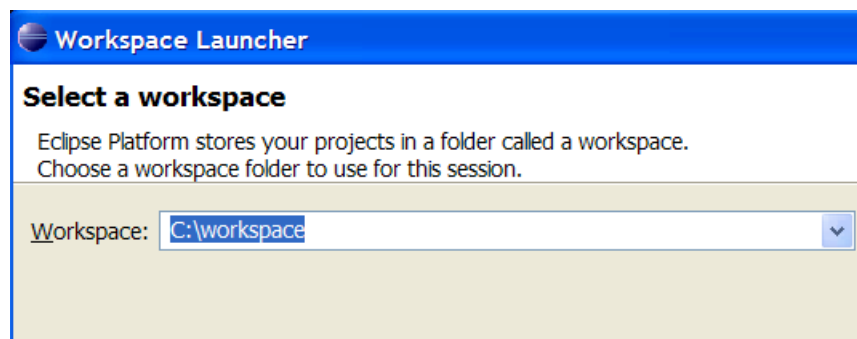
__1. Run `C:\Software\eclipse\eclipse.exe`

Eclipse Galileo 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 Galileo is working fine.

Part 7 - Verification of JBoss Application Server 5.0.1 GA JDK6

__1. Open a command prompt window.

__2. Change to the following folder:

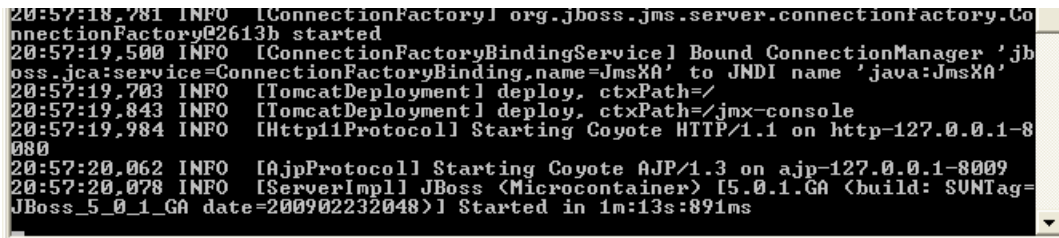
C:\Software\jboss-5.0.1.GA\bin

__3. Enter the command:

run.bat

__4. If you are prompted for security unblock the Java process.

__5. JBoss will start in about 60 seconds and the Started message will appear.



```
20:57:18,781 INFO [ConnectionFactory] org.jboss.jms.server.connectionfactory.Co
nnectionFactory@2613b started
20:57:19,500 INFO [ConnectionFactoryBindingService] Bound ConnectionManager 'jb
oss.jca:service=ConnectionFactoryBinding,name=JmsXA' to JNDI name 'java:JmsXA'
20:57:19,703 INFO [TomcatDeployment] deploy, ctxPath=/
20:57:19,843 INFO [TomcatDeployment] deploy, ctxPath=/jmx-console
20:57:19,984 INFO [Http11Protocol] Starting Coyote HTTP/1.1 on http-127.0.0.1-8
080
20:57:20,062 INFO [AjpProtocol] Starting Coyote AJP/1.3 on ajp-127.0.0.1-8009
20:57:20,078 INFO [ServerImpl] JBoss <Microcontainer> [5.0.1.GA <build: SUNTag=
JBoss_5_0_1_GA date=200902232048>] Started in 1m:13s:891ms
```

__6. Open another command prompt window.

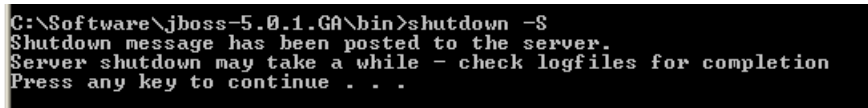
__7. Change to the following folder:

C:\Software\jboss-5.0.1.GA\bin

__8. Enter the command:

shutdown -S

JBoss will stop



```
C:\Software\jboss-5.0.1.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 . . .
```

__9. Press any key in the command prompt window.

__10. Switch to the first command prompt window. JBoss will shutdown. Click any key there too.

```
20:58:35.468 INFO [QuartzScheduler] Scheduler DefaultQuartzScheduler_$_NON_CLUSTERED shutdown complete.
20:58:35.750 INFO [TransactionManagerService] Stopping transaction recovery manager
20:58:36.031 INFO [HypersonicDatabase] Database standalone closed clean
20:58:40.640 INFO [ServerImpl] Shutdown complete
Shutdown complete
Halting VM
Press any key to continue . . .
```

__11. Close all the commands prompts open.

JBoss Application Server 5.0.1.GA JDK6 is working fine.

Congratulations. The installation of WA1713 Java EE 5 Patterns and Best Practices has been completed.