

WA1738 Java EE 5 Programming with Servlets and JSPs

Classroom Setup Guide

Web Age Solutions Inc.

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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, Windows Vista SP1
- Internet Explorer 6.0
- Zip archive utility
- JDK 6.0 Update 10 *
- Derby 10.7.1.1 *
- Eclipse JEE Galileo *
- JBoss Application Server 5.0.1.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:

- **WA1738.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.

Part 5 - Installation

__1. From the USB memory stick, extract the **WA1738.ZIP** file to **C:**

__2. Review that the following folders were created:

- **C:\LabFiles**
- **C:\Software**
- **C:\Software\db-derby-10.7.1.1-bin**
- **C:\Software\eclipse**
- **C:\Software\jboss-5.0.1.GA**

__3. Review that the following file was created:

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

Part 6 - 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.

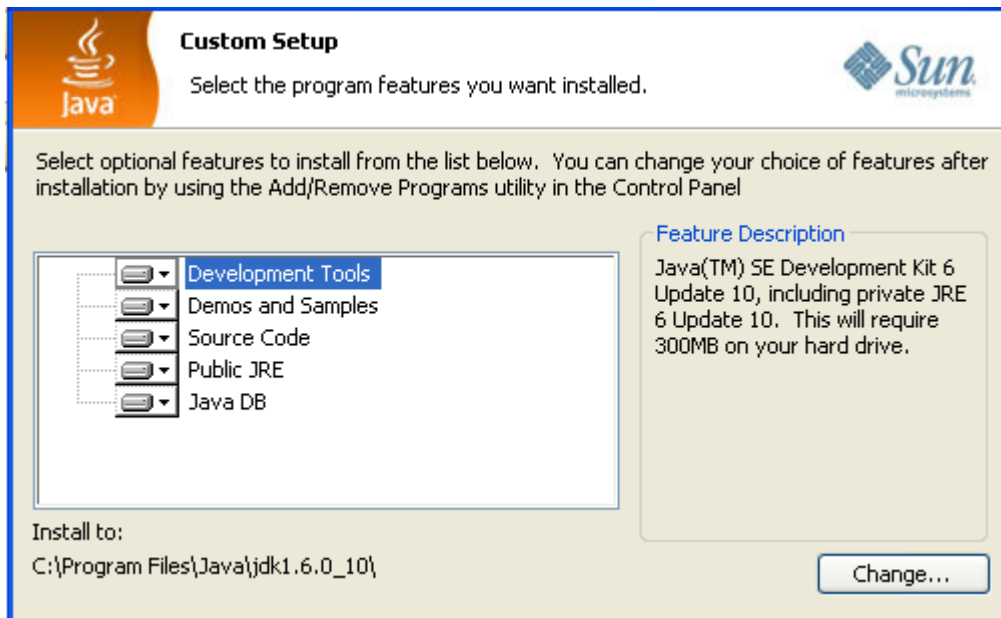
__2. From the **C:\Software** directory run the following file:

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

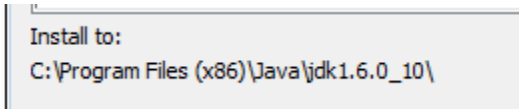
__3. After a few moments the license agreement will appear. Press the **Accept** button to move to the next step.



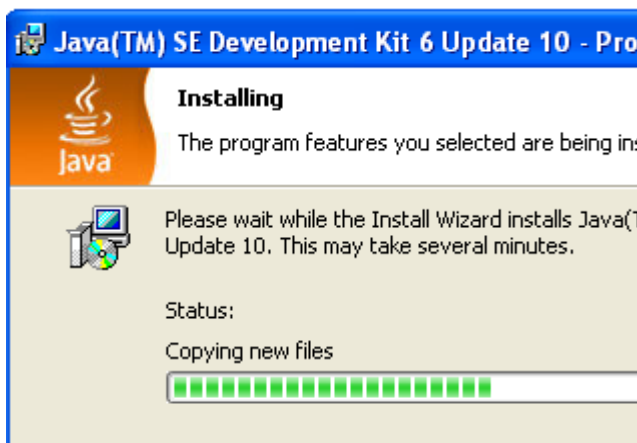
__4. Leave the defaults for installation location and options, and press the **Next** button.



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



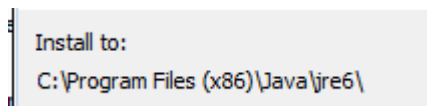
The installation will begin installing files.



__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.

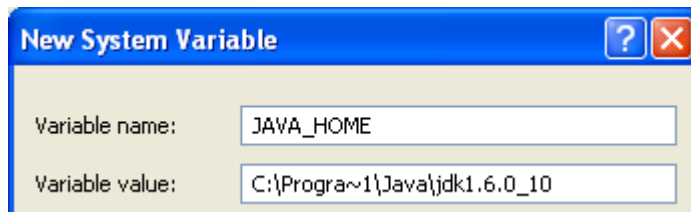
__6. Click the **Environment Variables** button.

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

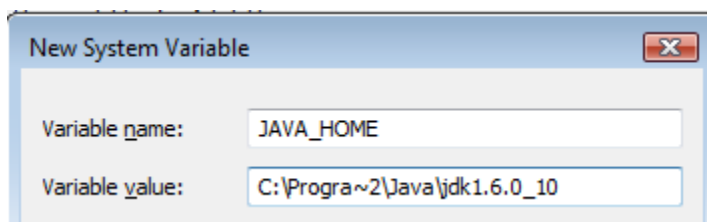
__8. Enter **JAVA_HOME** as Variable name.

__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.

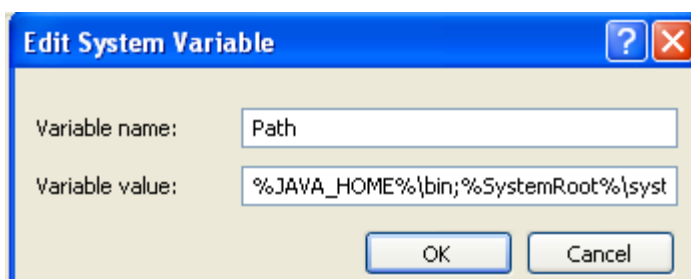


__10. Click **OK** to create the variable.

__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
```

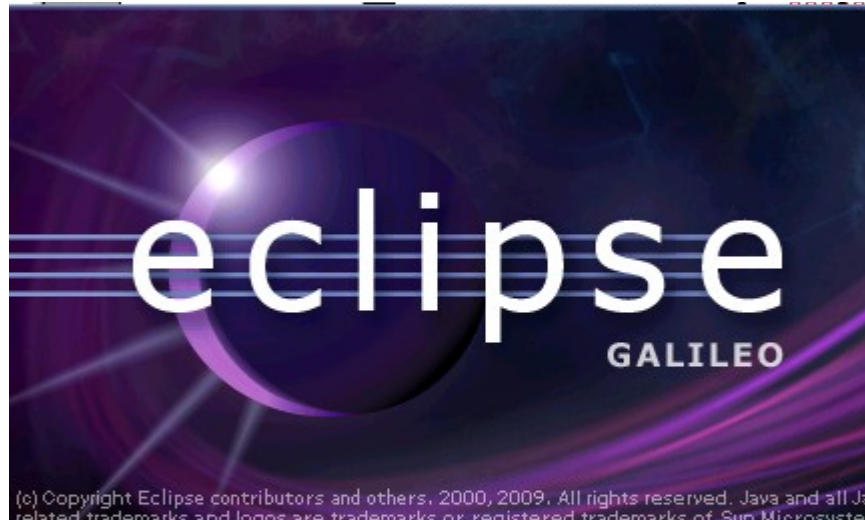
__4. Close the command prompt window and any extra windows that are open.

JDK 6 Update 10 is now installed!

Part 7 - Verification of Eclipse JEE Galileo

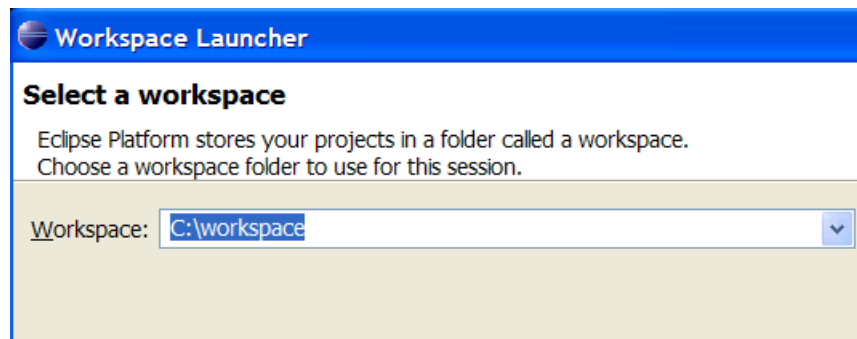
__1. Run C:\Software\eclipse\eclipse.exe

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 8 - Verification of JBoss Application Server 5.0.1 GA JDK6

__1. Open a command prompt window.

__2. Change to the following folder:

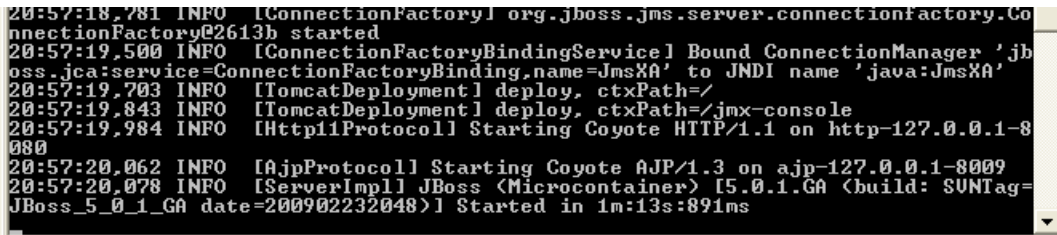
C:\Software\jboss-5.0.1.GA\bin

__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.

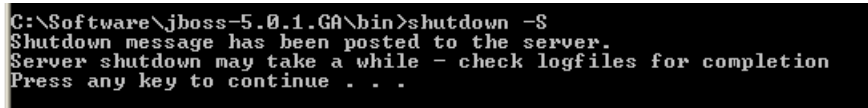
__7. Change to the following folder:

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

__8. Enter the command:

shutdown -S

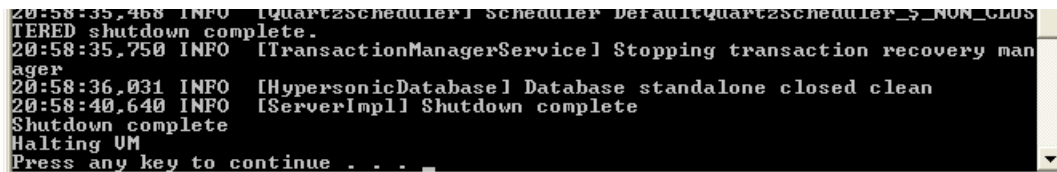
JBoss will stop



```
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_CLUS
TERED shutdown complete.
20:58:35,750 INFO [TransactionManagerService] Stopping transaction recovery man
ager
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.