

WA1677 J2EE Application Development with Spring and Hibernate

Classroom Setup Guide

Web Age Solutions Inc.

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Classroom Requirements

Part 1 - Minimum Hardware Requirements

- 1000 Mhz Pentium IV
- 512 MB RAM minimum, 1 GB recommended
- 8 GB in the hard disk
- Network connection
- Internet connection

Part 2 - Minimum Software Requirements

- Microsoft Windows 2000, 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:

- WA1677.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 **WA1677.ZIP** file to C:\

__2. Review that the following folders were created:

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

__3. Review that the following file was created:

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

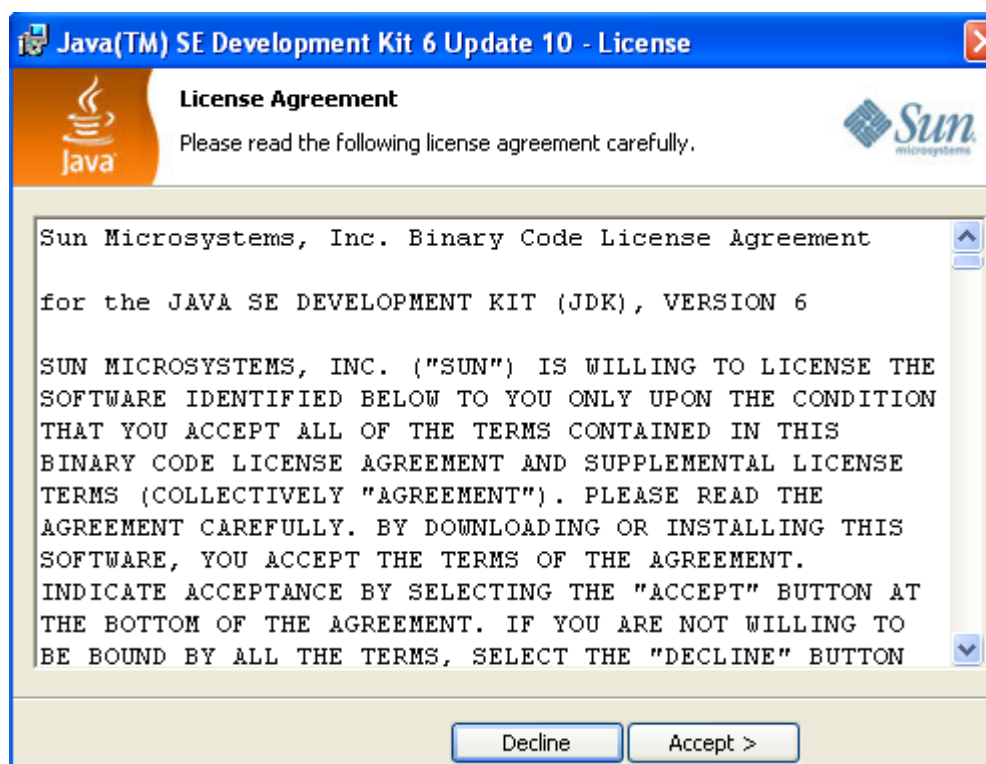
Part 2 - Installing JDK 6 Update 10

__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.

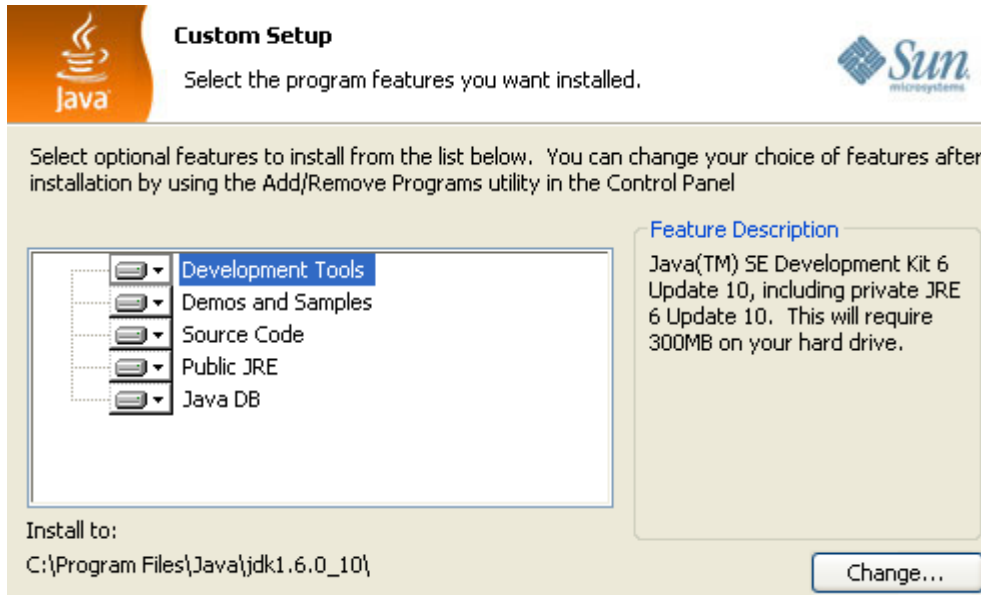
__2. From the **C:\Software** directory run the following file:

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

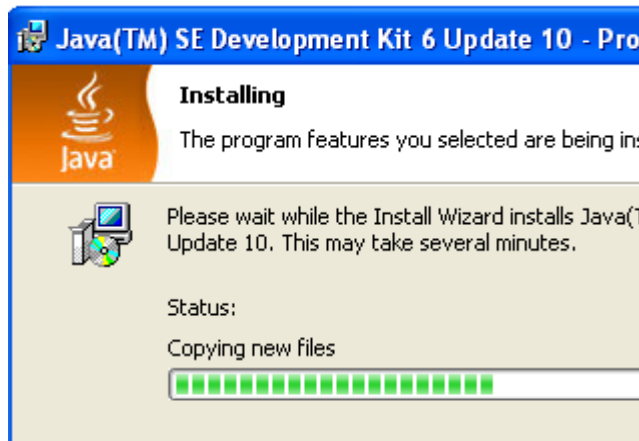
__3. After a few moments the license agreement will appear. Press the **Accept** button to move to the next step.



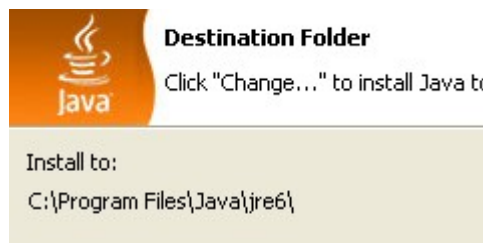
__4. Leave the defaults for installation location and options, and press the **Next** button.



The installation will begin installing files.



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



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

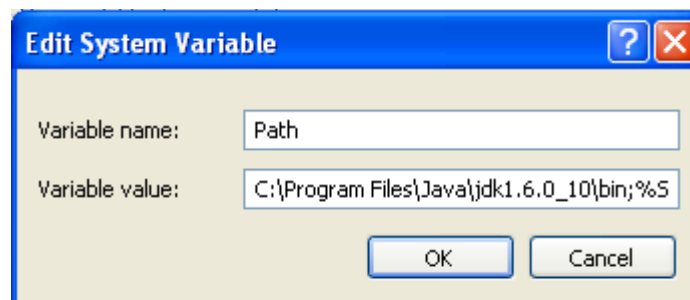
__2. Select the **Advanced** tab.

__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;`



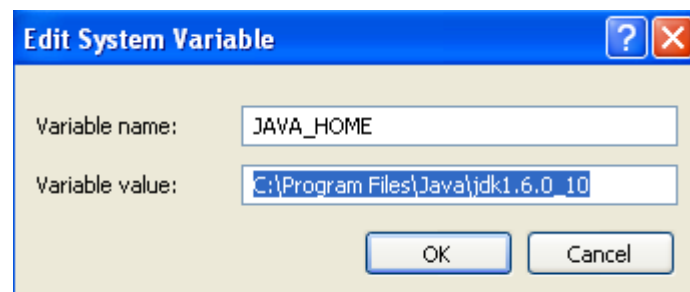
__6. Click **OK**.

__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 now installed!

Part 3 - Verification of Eclipse JEE Ganymede SR1

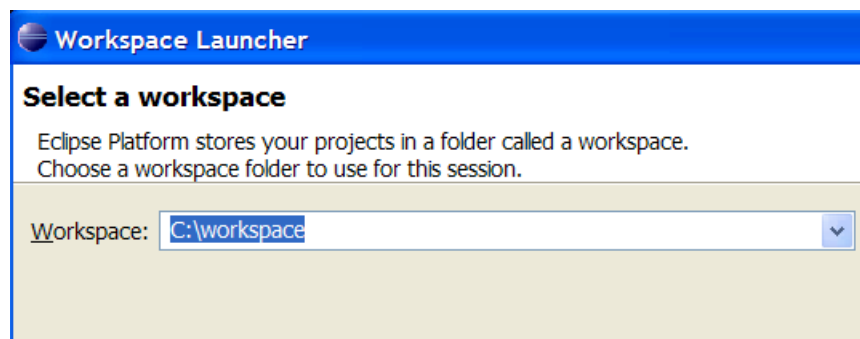
__1. Run C:\Software\eclipse\eclipse.exe

Eclipse Ganymede will start.



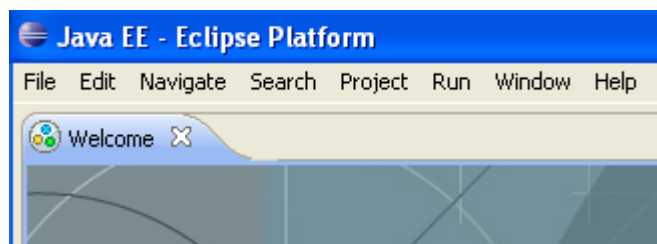
__2. A Workspace Launcher dialog will appear. Change the workspace directory to:

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=JBos s_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 JN
13:01:45,984 INFO [TomcatDeployer] undeploy, ctxPath=/web-console, warUrl=
13:01:46,156 INFO [Http11Protocol] Pausing Coyote HTTP/1.1 on http-127.0.0.1:8080
13:01:46,156 INFO [AjpProtocol] Pausing Coyote AJP/1.3 on ajp-127.0.0.1:8009
13:01:47,156 INFO [StandardService] Stopping service jboss.web
13:01:47,171 INFO [Http11Protocol] Stopping Coyote HTTP/1.1 on http-127.0.0.1:8080
13:01:47,171 INFO [AjpProtocol] Stopping Coyote AJP/1.3 on ajp-127.0.0.1:8009
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.