

# **WA1962 Java EE Programming with Spring 3 Using Eclipse and WebSphere**

## **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 - Important Ghosting or Imaging Information.....	4
Part 5 - Instructions.....	4
Part 6 - Installing Java SE 6 JRE Update 26.....	4
Part 7 - Verification of Java SE 6 JRE Update 26.....	7
Part 8 - Installing WebSphere Application Server 8.0 for Developers.....	8
Part 9 - Verification of the installation of WebSphere Application Server 8.0 for Developers.....	17
Part 10 - Modify File Permissions.....	18

## Part 1 - Minimum Hardware Requirements

- 2 GHz Pentium IV
- 2 GB RAM minimum, 3 GB recommended
- 30 GB in the hard disk
- USB port

## Part 2 - Minimum Software Requirements

- Adobe Acrobat Reader
- Zip extraction utility
- One of the following web browsers
  - Internet Explorer 7 or 8
  - Firefox 3.0 or 3.5
- WebSphere Application Server 8.0 for Developers \*
- SpringSource Tool Suite 2.6.0 \*
- WebSphere Development Tools for Eclipse 8.0.4 \*
- Java SE 6 Update 26 JRE \*
- Derby 10.7.1.1 database \*

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

## Part 3 - Software Provided

You will receive the following file:

- **WA1962.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

Some of the software installed for this course will not function after changing the computer hostname. As such, cloning or imaging should not be used on a fully installed system.

You can save time by extracting the contents of the USB memory stick to C:\ on a clean OS install (no other software installed) and then imaging that hard drive. After restoring the image to the other computers and changing the hostnames, you can then install the software on each computer individually by following the instructions that are detailed later in this document.

## Part 5 - Instructions

\_\_1. Extract the **WA1962.ZIP** file to C:\

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

- **C:\LabFiles**
- **C:\Software\**
- **C:\Software\apache-maven-2.2.1**
- **C:\Software\db-derby-10.7.1.1-bin**
- **C:\Software\eclipse**
- **C:\Software\MavenRepository**
- **C:\Software\RESTClient**
- **C:\Software\WebSphere8Developers**

\_\_3. Review that the following files were created:

- **C:\Software\jre-6u26-windows-i586.exe**

## Part 6 - Installing Java SE 6 JRE Update 26

\_\_1. From the **C:\Software** directory, run the following file:

**jre-6u26-windows-i586.exe**

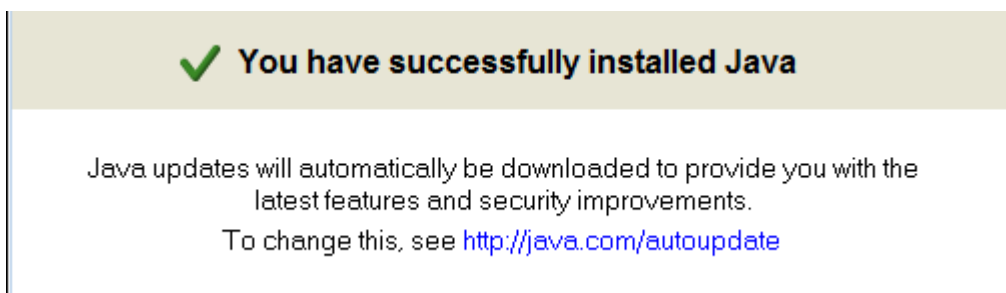
**Note:** If using prompted by a security prompt allow the installation to continue.

\_\_2. After a few moments the installation screen will appear. Press the **Install** button to begin the installation.



\_\_3. Wait while the software installs.

\_\_4. Make sure you get a success message and click the **Close** button.



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

\_\_1. 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.

\_\_2. If using Windows Vista click the link for "Advanced System Settings".

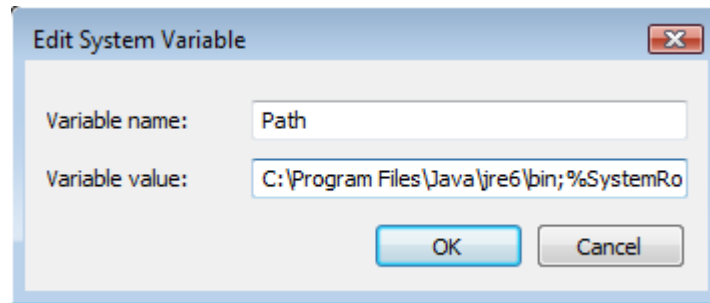
\_\_3. Select the **Advanced** tab.

\_\_4. Click the **Environment Variables** button.

\_\_5. From the *System Variables* list, select **Path** and click **Edit**.

\_\_6. At the beginning of the line enter the following:

```
C:\Program Files\Java\jre6\bin;
```



**Note:** If you are using a 64-bit OS use 'C:\Program Files (x86)\Java\jre6\bin' instead. You might want to check the folder already exists on your system.

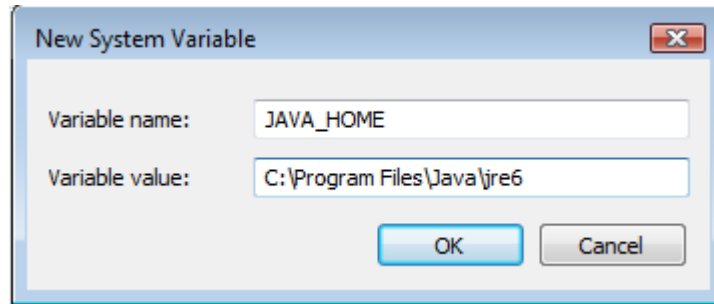
\_\_7. Click **OK**.

\_\_8. Under the System Variables list, click the **New** button.

\_\_9. Enter **JAVA\_HOME** as Variable name.

\_\_10. As Variable value enter the following. This is similar to the previous variable but without the 'bin' directory.

```
C:\Program Files\Java\jre6
```



**Note:** If you are using a 64-bit OS use 'C:\Program Files (x86)\Java\jre6' instead. You might want to check the folder already exists on your system.

- \_\_11. Click **OK** to create the variable.
- \_\_12. Click **OK** to close the *Environment Variables* window.
- \_\_13. Click **OK** to close the *System Properties* window.
- \_\_14. Restart the computer.

## Part 7 - Verification of Java SE 6 JRE Update 26

\_\_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:\Users\Student>java -version
java version "1.6.0_26"
Java(TM) SE Runtime Environment (build 1.6.0_26-b03)
Java HotSpot(TM) Client VM (build 20.1-b02, mixed mode, sharing)
C:\Users\Student>
```

\_\_3. Close the command prompt window and any extra windows that are open.

JRE 6 Update 26 is now installed!

## Part 8 - Installing WebSphere Application Server 8.0 for Developers

\_\_1. Make sure that you are logged in as an administrative user.

**Note:** Certain aspects of WebSphere may require certain user rights of the Windows ID that will run the Application Server. The required user rights on a Windows machine are: “Act as part of the operating system” and “Log on as a service”.

\_\_2. If possible, disable any anti-virus or script-blocking software that may interfere with the installation.

\_\_3. Open a Windows Explorer window.

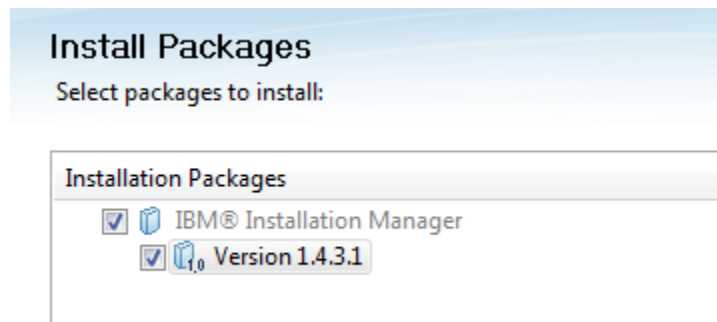
\_\_4. Navigate to the **C:\Software\WebSphere8Developers** directory.

\_\_5. Double click on the **install.exe** file to run it. Make sure not to run the 'installc.exe' program as this is a different installation program.

**Windows Vista/2008/7:** If you are running the labs on a Vista/2008/7 system, right click the install.exe program and select '**Run as Administrator**'.

Keep an eye out for other notes with Vista/2008/7 instructions in other parts of the setup.

\_\_6. Make sure the default version of the 'IBM Installation Manager' is selected and click the **Next** button.



\_\_7. Accept the license agreement and press the **Next** button.



\_\_8. Accept the default installation directory and click the **Next** button.

Installation Manager Directory:

\_\_9. On the **Installation Packages** summary screen press the **Install** button to begin the installation. If you are prompted with a security warning unblock the Java process.

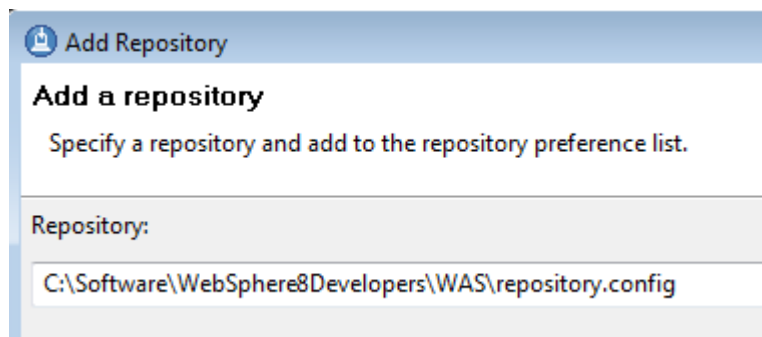
\_\_10. Once the installation is complete, click the **Restart Installation Manager** button.

\_\_11. Once the 'IBM Installation Manager' has restarted, select **File** → **Preferences**.

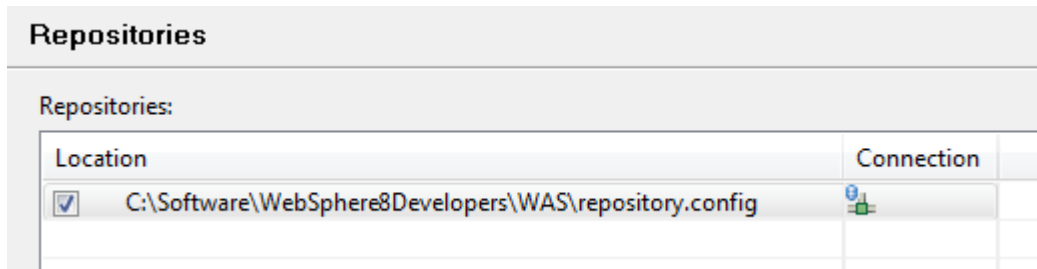
\_\_12. Make sure the '**Repositories**' preferences are selected on the left and click the '**Add Repository**' button on the right.

\_\_13. On the dialog that appears, click the **Browse** button, find the '**C:\Software\WebSphere8Developers\WAS\repository.config**' file and open it.

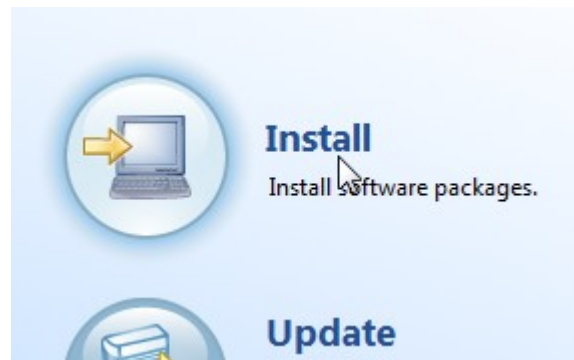
\_\_14. Make sure the correct repository configuration file is listed as shown below and click the **OK** button.



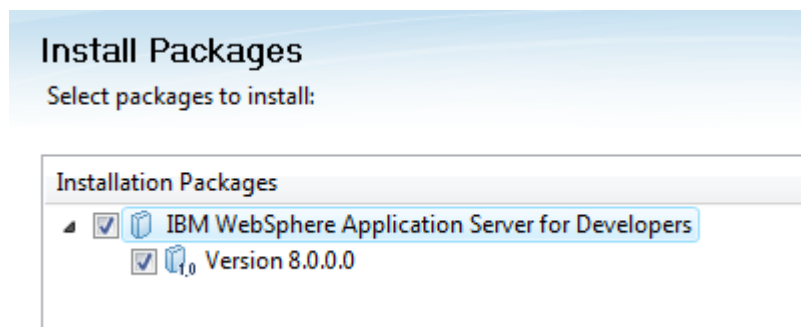
\_\_15. Make sure the new repository is listed in the list, is checked, and doesn't have any errors in the 'Connection' column and click the **OK** button to close the preferences.



\_\_16. Back in the main screen of Installation Manager, click the **Install** button.

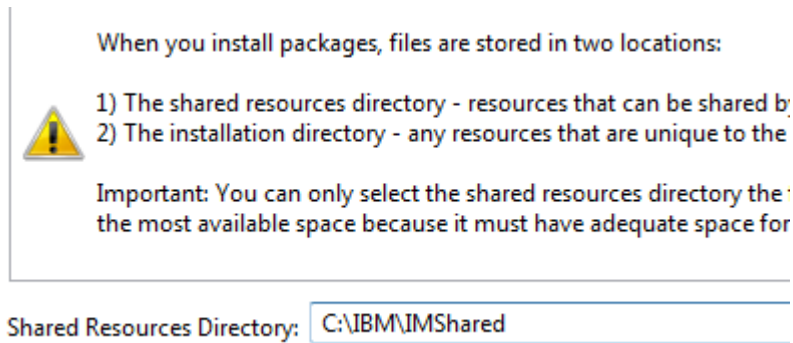


\_\_17. Check the box to install 'WebSphere Application Server for Developers' version 8.0 and click the Next button.



\_\_18. Accept the license agreement and press the **Next** button.

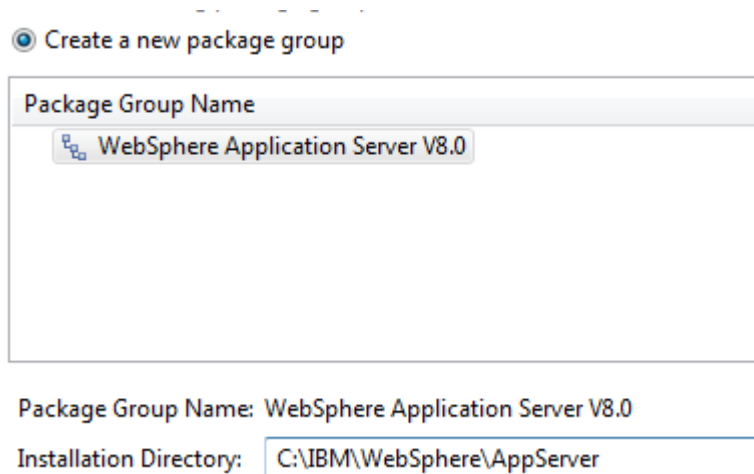
\_\_19. **Modify** the shared resources directory to '**C:\IBM\IMShared**'.



**Windows Vista/2008/7:** It is especially important to modify the installation location on these systems as there may be errors saving to the WebSphere configuration if the product is installed under the 'Program Files' folders.

\_\_20. Click **Next**.

\_\_21. **Modify** the installation directory to '**C:\IBM\WebSphere\AppServer**'.

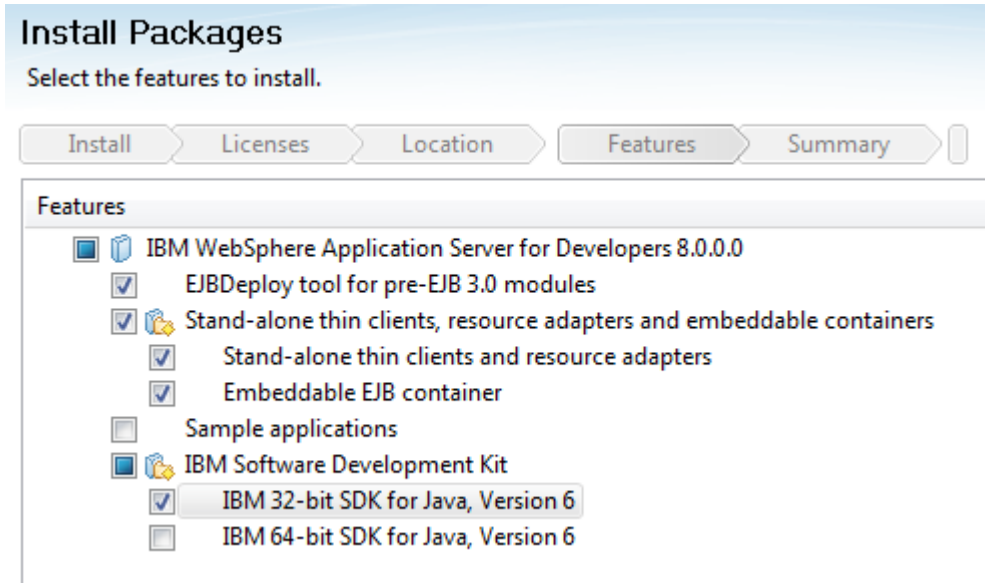


**Windows Vista/2008/7:** It is especially important to modify the installation location on these systems as there may be errors saving to the WebSphere configuration if the product is installed under the 'Program Files' folders.

\_\_22. Click **Next**.

\_\_23. Leave the default language selections and click the **Next** button.

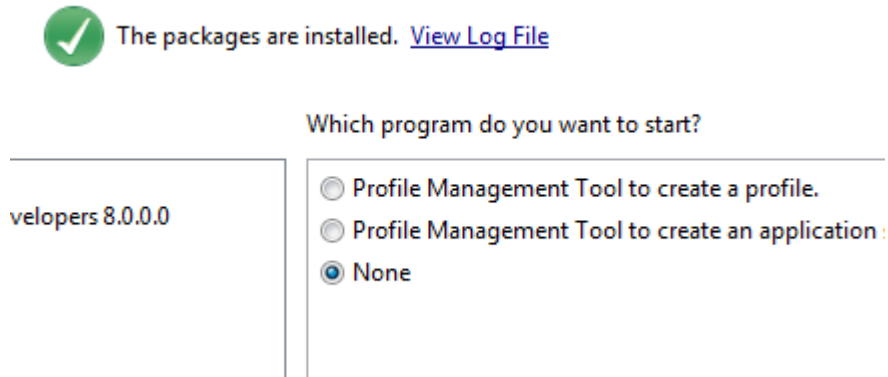
\_\_24. Make sure the '**IBM 32-bit SDK for Java, Version 6**' is selected, changing the selection if needed and click the **Next** button. If you don't see the 'IBM Software Development Kit' listed click the **Next** button to continue.



**Note:** It is important to select the 32-bit JDK for this setup since some development tools used may be linked to it and won't work with the 64-bit JDK.

\_\_25. Click the **Install** button to start the install.

\_\_26. Once the program is installed, **change** the option to 'None' to disable starting another program and click the **Finish** button to close the installation.



**Note:** Students will create a server environment to ensure they have the correct permissions to control the server.

\_\_27. Select **File** → **Exit** to close the Installation Manager.

## Part 9 - Verification of the installation of WebSphere Application Server 8.0 for Developers

\_\_1. Open the following file:

`C:\IBM\WebSphere\AppServer\logs\postinstall\postinstall.log`

\_\_2. Look at the end of the file for the message:

```
<sequence>28</sequence>
<logger>com.ibm.ws.postinstall</logger>
<level>INFO</level>
<class>com.ibm.ws.postinstall.LaunchUnif
<method>logReturnCode</method>
<thread>0</thread>
<message>INSTCONFSUCCESS: All config act
</record>
</log>
```

If you see the message INSTCONFSUCCESS, it means that WebSphere Application Server was installed properly.

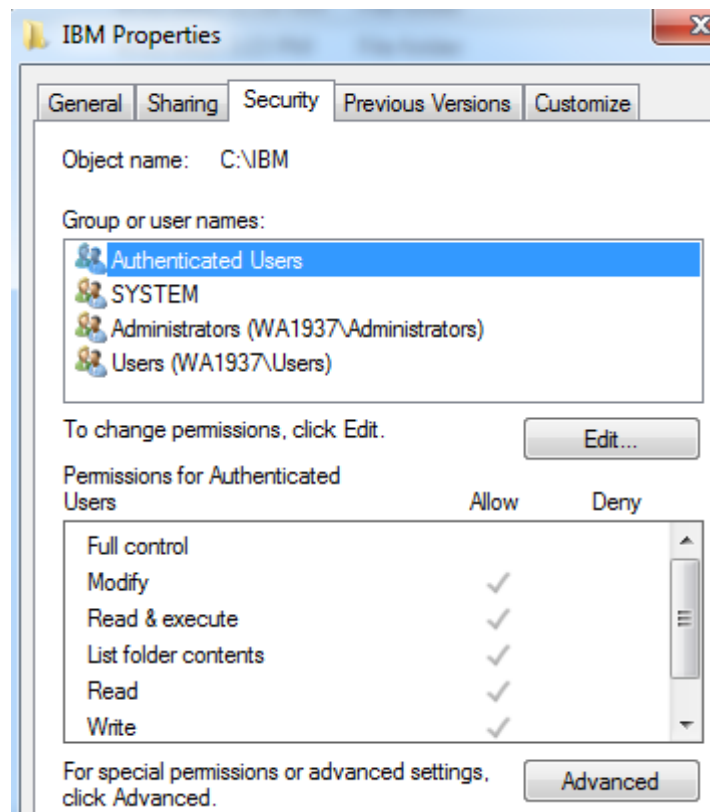
\_\_3. Close all open files.

## Part 10 - Modify File Permissions

**Note:** These steps allow full access to the directories used by the WebSphere install. This is required so that students can start the WebSphere server from within development tools and will allow the WebSphere server to write to the log files. Without these steps the students won't be able to start the WebSphere server and won't be able to do the labs.

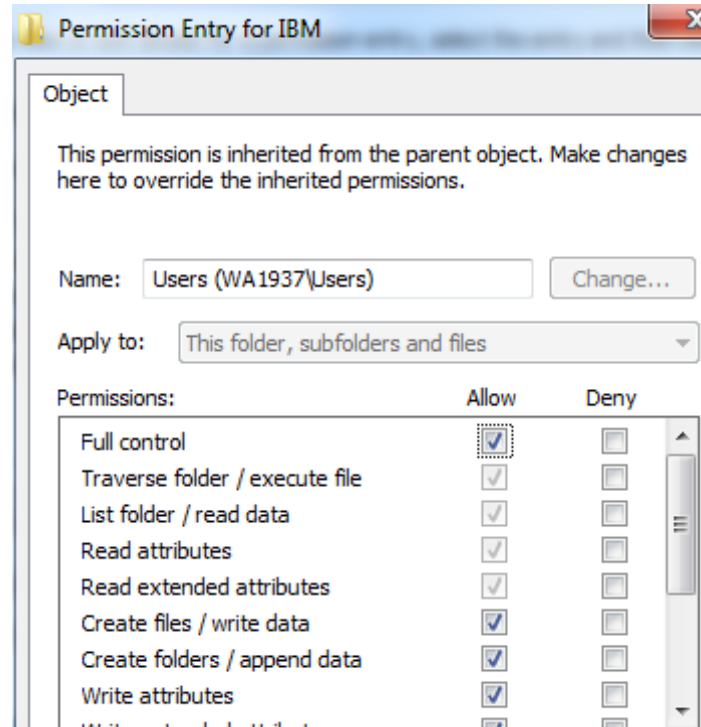
These steps allow full access to the directories used by the WebSphere install. The steps to accomplish this may vary by Windows version but the goal is the same, granting access to all users to the WebSphere install. If you have questions about how to accomplish this contact the setup support person for the class.

- \_\_1. Right click C:\IBM and select **Properties**.
- \_\_2. Click the **Security** tab.
- \_\_3. Click **Edit**.



\_\_4. Select the **Users entry (add one if not present)**.

\_\_5. Check **Full Control** permission option and click **OK**.



\_\_6. Wait until the process finishes updating security, and close all windows when is done.

\_\_7. Give full privileges to **C:\LabFiles** to all users.

\_\_8. Restart the computer and login with the user that the student will use to do the Labs.

\_\_9. Make sure the user has full access to **C:\LabFiles** as well as **C:\IBM** folders.

Congratulations. The installation of WA1962 Java EE Programming with Spring 3 Using Eclipse and WebSphere has been completed.