IBM

Introduction to Java for RPG Programmers Using WDSC

(Course code AS08)

Lab Setup Guide

ERC 4.1

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Purpose

This **Lab Set Up Guide** provides directions for installing, preparing, and verifying the lab hardware and software in preparation for conducting a class of courses AS08.

The Requirements sections of this document may also be used to determine the specific hardware and software needed to conduct a class.

Requirements

The following tables list the hardware, software, and other materials needed to set up a lab to conduct a class for course AS08.

Hardware Requirements

Table 1 lists the hardware needed to prepare one student lab set. When preparing for a class, multiply the items below by the number of lab systems needed for the class.

Table 1: Hardware for one student or instructor lab set

Platform Use	Machine Requirements	Minimum Memory	Minimum Disk Space	Features
Student	1.0 GHz Pentium III or higher	1024 MB	10 GB	LAN-attached or loopback support (the TCP/IP stack must be installed)
Instructor	1.0 GHz Pentium III or higher	1024 MB	10 GB	LAN-attached or loopback support (the TCP/IP stack must be installed)
Instructor	Any RISC-based iSeries system that supports OS/400 V5R4M0 or above	N/A	N/A	

Software Requirements

Table 2 lists the software needed to prepare the student and instructor lab sets. When preparing for a class, be sure you have the correct number of licensed copies of any non-IBM software.

Table 2: Software for Instructor and Student Systems

Platform Use	Operating System	OS Version	Applications	Application Version	Licensing Requirement
Student	Windows XP Professional[a]	Latest Service			Site must provide for private offerings
			IBM WebSphere Development Studio Client for iSeries	Version 7.0	
			Adobe Acrobat Reader	Version 8.0 or later	Site must provide for private offerings
			WinZip or equivalent	8.0 or later	Site must provide for private offerings
Instructor	Same as student system	Same as student system	Same as student system	Same as student system	Same as student system
Instructor	OS/400	V5R4M0 (or later) with latest Cumulative PTF package			
			5722SS1 option 12 OS/400 - Host Servers	V5R4M0 (or later)	N/A
			5722JC1 Toolbox for Java	V5R4M0 (or later)	N/A
			5722ST1 DB2 Query Mgr and SQL DevKit	V5R4M0 (or later)	N/A

Table 2: Software for Instructor and Student Systems

Platform Use	Operating System	OS Version	Applications	Application Version	Licensing Requirement
			5722WDS (all options) WebSphere Development ToolSet	V5R4M0 (or later)	N/A
			5722TC1 TCP/IP Connectivity Utilities	V5R4M0 or later	N/A

a. All testing of these instructions and all testing of the lab exercises were conducted on systems running Windows XP Professional. The worldwide standard for this course is Windows XP.

Skills Required to Set Up the Lab

The following specialized skills are required to set up the lab:

Installer must be familiar with installing products on Windows XP and must be familiar with the administration and customization of Windows XP. Installer must also be familiar with basic OS/400 command navigation and administration function.

Set Up Instructions

Configuration Information

The following describes the configurations of the student and lab systems.

Hardware Setup Instructions

__ 1. Make sure each student and instructor machine contains a network card with a unique IP address.

Software Setup Instructions

Use the following information in addition to the normal software installation procedures to set up the lab software.

__ 1. Setting up Windows XP Professional[1]

 __ a. Install Windows XP Professional (if Windows XP is not already installed).

 __ b. If networking support has been installed, it is highly recommended that students have access to the Internet. This will allow them to access WebSphere and WebSphere Development Studio Client for iSeries related Web sites during the course.

 __ c. Choose an appropriate local administrator ID and password. This must be made known to the instructor, who must inform the students ("userid-password" and other easily guessable combinations should be avoided).

 __ d. Set the paging file size to an initial size of 2048 MB (or twice the memory size, whatever is bigger); set the maximum size to the same value. (Start up **System** from the **Control Panel**, select the **Advanced** tab, and click the **Performance Options...** button and then click the **Change...** button under the **Virtual memory** section.)

__ 2. Install Windows XP with the latest service pack.

__ 3. Install critical Microsoft Windows security updates.

__ 4. Log on with the userid and password chosen in step **1c** above.

__ 5. Install Adobe Acrobat Reader, Version 8.0 (or higher).

__ 6. Install WinZip, Version 8.0 (or higher).

__ 7. Install WebSphere Development Studio Client for iSeries, Version 7.0. This is a two step process - install WebSphere Studio Site Developer and then the iSeries extensions. Both are provided on the same CD.

[1] See comments in the Software Requirements section about the use of Window NT. This is not a supported environment for this course, but is a supported environment for the products. Course support of this is up to the individual geographies that want to run Windows NT.

__ 8. The latest version of the iSeries Toolbox for Java is provided as part of the installation of WDSc V7.0. This jar file (jt400) will be downloaded during the installation to the client workstation. A second copy is also available in the following IFS directory:

```
/qibm/proddata/http/public/jt400/lib/jt400.jar
```

i Setup

The AS08V4LIB savf contains an i Save File (*SAVF). This file (save file format V5R4) must be uploaded to any i library.

The restore the AS08V4LIB library (AS08 Class Master library) from the AS0804LIB Save file on the i. The AS08V4LIB contains everything needed for all exercises. Be sure that lab exercise software on the lab system, and that setup process has been run.

Course Setup Procedure

__ 1. Restore library AS08V4LIB to the lab exercise system.

```
execute cmd CHGCURLIB AS08V4LIB
```

__ 2. STRPDM and compile program INLPGM in library AS08V4LIB source file QCLSRC

```
execute cmd GO COURSE
```

__ 3. Select the menu option to display course code, name, edition, and version information. Be sure your copy of AS08V4LIB matches the edition number in the front matter of your instructor materials.

__ 4. Select the menu option to create profiles for a class. The profile created for each student is

    USRPRF(AS08nnn)
    PASSWORD(AS08)
    expire at first logon

__ 5. All AS08* profiles are granted additional authorities to:

    STRDBG cmd
    RSTOBJ cmd
    CHGJRN cmd

__ 6. Each iteration (class) of the course has a group profile, AS08GROUP0, and exist only to simplify and shorten the setup authority process. The profiles for the class are AS08000 through AS08999, depending on the number of students for whom profiles are required. The instructor profile ends in 000 and has authority to their own objects but do not have authority to other students' libraries.

__ 7. The initial password is AS08 for all teams.

Course Clean Up Procedure

__ 1. On the i, invoke the course setup menu, `GO COURSE`. Option 4 will clean up the class.

__ 2. Open a command prompt by selecting **Start->cmd**.

__ 3. Type `ipconfig`. Make sure your network card is shown with the appropriate IP address.

Installing Lab files on the PCs

__ 1. Unzip the **AS084labfiles.zip** file to the **C:** drive. Make sure the **Use folder names option** is selected.

__ 2. Using the Windows Explorer, verify that the directory **sw277** has been created on the **C:** drive.

__ 3. Note the iSeries TCP/IP name by prompting (F4) the following CL command at OS/400 command entry. Write this down for the students as they will need it during the JDBC lab.

   CHGTCPDMN

__ 4. Start the database host server by the following CL command at OS/400 command entry:

```
STRHOSTSVR SERVER (*DATABASE) RQDPCL (*TCP)
```

__ 5. Verify that networking support is enabled. Make sure that the network card has a unique IP address. This is required for executing the Exercise 11: JDBC.

   __ a. Open a command prompt by selecting **Start->cmd**.

   __ b. Type `ipconfig`. Make sure your network card is shown with the appropriate IP address.