1998 Fall COMMON Java Labs Setup

About this package

This package is the ZIP version of the full content of the 5 Java labs IBM hosted at the 1998 Fall COMMON at Anaheim. We are making it available on the web to AS/400 customers for them to learn more about programming in Java and using VisualAge for Java targeting AS/400. It contains:

1. Documentation and instructions for the 5 labs:
- The Road to Java
- Introduction to VisualAge for Java
- AS/400 Toolbox for Java and GUI Components
- Java for RPG Programmers
- AS/400 Data Access Using Enterprise Toolkit for AS/400
  (Note: AS/400 Data Access Using Java lab handout is not included, since it was not offered at
          COMMON).

2. One VisualAge for Java 'interchange file' with source code for the Labs.

Disclaimer

This package is available for use AS IS. There is no support or service to the documentation and the code shipped with the package. IBM reserves all the rights to the lab material. This self-study material is provided for personal use. Reproduction of the material for commercial use is prohibited unless written agreement is provided by IBM.

Workstation Setup

Hardware Requirements:
Pentium 166Mhz or better workstation
At least 48MB RAM (64MB Recommended)
At least 200MB free hard disk space after all the pre-requisite software is installed.
SVGA Monitor (1024x768 pixels resolution with 256 colors Recommended)

Software Requirements:
- Windows 95/NT 4.0 Operating System with the latest Service Packs.
- VisualAge for Java Enterprise Edition 2.0
- Client Access 400 (Version 3 Release 1 Mod 2 with latest Service Pack installed)
- Java Development Kit (JDK) 1.1.6+
- Java Foundation Classes (JFC or Swing) 1.0.2
- Netscape 3.0 or Netscape Communicator 4.0
- AS/400 Toolbox for Java Classes (V4R3 Mod 1 version)
- WINZIP or PKUNZIP which supports long filenames
- An editor that supports long filenames such as LPEX Editor.
- Downloaded **VJ400LAB.ZIP** (interchange file and lab handouts)

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* AS/400 Toolbox for Java Classes (V4R3 Mod 1 version)
* WINZIP or PKUNZIP which supports long filenames
* An editor that supports long filenames such as LPEX Editor.
* Downloaded **VJ400LAB.ZIP** (interchange file and lab handouts)

Initial Setup Instructions:

Ensure that appropriate Operating System and all pre-requisite software are installed on the workstation with enough space to install other software. Find the partitions that can hold the other software.

1. Unzip downloaded **VJ400LAB.ZIP** on the partition with enough free space.

2. Add JDK, Swing and AS/400 Toolbox for Java classes to your windows environment as follows.
   On WIN95: Make sure that the **PATH** statement in **C:\AUTOEXEC.BAT** includes
   "x:\jdk1.1.6\bin;.;" and the **CLASSPATH** statement includes
   "x:\jdk1.1.6\lib\classes.zip;.;x:\swing\swing.jar;x:\jt400\lib\jt400.zip".
   On WIN/NT: You can click on the **My Computer** icon on the desktop. Open **Control Panel** folder, and double click **System** icon. Click **Environment** tab. Modify **PATH** to include
   "x:\jdk1.1.6\bin;.;".   Modify **CLASSPATH** to include
   "x:\jdk1.1.6\lib\classes.zip;.;x:\swing\swing.jar;x:\jt400\lib\jt400.zip".

3. Launch **VisualAge for Java** by selecting **Start->Programs->IBM VisualAge for Java for Windows->IBM VisualAge for Java.** Then select **"Go to Workbench"** radio button on the
VisualAge   Quick Start dialog box and click **OK**. Click on **File** menu and select **Quick Start** (or press F2) to bring
   up **Quick Start** window. Select **Features** and **Add Features** and click **OK.** Select
   IBM Enterprise Toolkit for AS/400. Click **OK** to install it**.** This may take a while, so keep patience.
   Wait until it is done.

4. On the Workbench, click on the **File** menu and select **Import** to bring up **Import** SmartGuide. Select **"Repository"** radio button on the first screen, and then on the second screen click **Browse...** button. Select the folder **x:\VJ400LAB**, where you have installed the lab. Select **VJ400LAB.DAT** and click **OK** to close the dialog box. On the **Import** SmartGuide click **Update** button to update the list. Select the latest Edition from the list, and click **Finish.** This may take a while.

5. On the Workbench, right click on the white space and select **Add project….** It brings up the **Add Project** SmartGuide. Select **Add project from repository,** and click **Browse** button. On the **Browse** dialog, click on **VA Java for AS400 Labs** project, click on the latest edition from the List of Editions, and click **">>"** icon, and click **OK** button. This will close the **Browse** dialog, and return to **Add Project** SmartGuide. Click **Finish** button to add the project from the repository to the Workspace.

6. Expand the **VJ400LAB5** package and the **MainWindow** class in it. Click on the **connect()** method. Change the server name from S400A to your AS/400 host name on the following statement.
   as400Connect = DriverManager.getConnection("jdbc:as400://yourAS400");
   Press CTRL+S to save the changes.

7. Note that you must complete the AS/400 setup before performing this step.
   Expand **ZY400APP** to see the **InventoryList** class. Click on **Run** button on the toolbar to run it. The Signon to AS/400 dialog appears. Enter appropriate data and click OK. If everything is setup correctly you should be able to run the application properly. Try List button to make an AS/400 connection and populate the list. Click on a part and see that the Part Detail is shown. Try updating the part by changing the Inventory and clicking the Update button.

   If the Signon dialog does not display, than check the Console window. If you see the java.lang.NoClassDefFoundError exception, then right click on the InventoryList class and select Properties from the pop-up menu. Click on the Class Path tab on the Properties window. Check the Project path check box and click on the **Edit...**. Check **IBM Enterprise Toolkit for AS/400** and **JFC class libraries** projects. Click **OK** and **OK.** Run it again and follow the steps in the previous paragraph.

   Your System Name : (the system you noted in step 10)
   Your Userid : JAVA01

Initial Setup Instructions:

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On WIN95: Make sure that the **PATH** statement in **C:\AUTOEXEC.BAT** includes
"x:\jdk1.1.6\bin;.;" and the **CLASSPATH** statement includes
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On WIN/NT: You can click on the **My Computer** icon on the desktop. Open **Control Panel** folder,
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3. Launch **VisualAge for Java** by selecting **Start->Programs->IBM VisualAge for Java for Windows->IBM VisualAge for Java.** Then select **"Go to Workbench"** radio button on the
VisualAge   Quick Start dialog box and click **OK**. Click on **File** menu and select **Quick Start** (or press F2) to bring
up **Quick Start** window. Select **Features** and **Add Features** and click **OK.** Select
IBM Enterprise Toolkit for AS/400. Click **OK** to install it**.** This may take a while, so keep patience.
Wait until it is done.

4. On the Workbench, click on the **File** menu and select **Import** to bring up **Import** SmartGuide. Select **"Repository"** radio button on the first screen, and then on the second screen click **Browse...** button. Select the folder **x:\VJ400LAB**, where you have installed the lab. Select **VJ400LAB.DAT** and click **OK** to close the dialog box. On the **Import** SmartGuide click **Update** button to update the list. Select the latest Edition from the list, and click **Finish.** This may take a while.

5. On the Workbench, right click on the white space and select **Add project….** It brings up the **Add Project** SmartGuide. Select **Add project from repository,** and click **Browse** button. On the **Browse** dialog, click on **VA Java for AS400 Labs** project, click on the latest edition from the List of Editions, and click **">>"** icon, and click **OK** button. This will close the **Browse** dialog, and return to **Add Project** SmartGuide. Click **Finish** button to add the project from the repository to the Workspace.

6. Expand the **VJ400LAB5** package and the **MainWindow** class in it. Click on the **connect()** method. Change the server name from S400A to your AS/400 host name on the following statement.
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Press CTRL+S to save the changes.

7. Note that you must complete the AS/400 setup before performing this step.
Expand **ZY400APP** to see the **InventoryList** class. Click on **Run** button on the toolbar to run it. The Signon to AS/400 dialog appears. Enter appropriate data and click OK. If everything is setup correctly you should be able to run the application properly. Try List button to make an AS/400 connection and populate the list. Click on a part and see that the Part Detail is shown. Try updating the part by changing the Inventory and clicking the Update button.

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          Your System Name : (the system you noted in step 10)
          Your Userid : JAVA01

Your Password : JAVA01
Your AS/400 Library : ADTSLAB

Your Password : JAVA01
Your AS/400 Library : ADTSLAB

AS/400 Host Setup

Hardware Requirements:

An AS/400 system

Software Requirements:

OS/400 V3R7+ or V3R2+ with the latest PTF CUM tape installed
PW1 (LPP 57xxPW1) **-** ADTS/400 with one of the following PTF installed

V3R2M0	5763PW100	SF45556
V3R6M0	5716PW100	SF45554
V3R7M0	5716PW100	SF51022
V4R2M0	5769PW100	SF49832
V4R3M0	5769PW100	SF49832

Client Access for Windows with the latest PTFs installed
TCP/IP

Setup Instructions:

NOTE: You must have *SECADMIN and *ALLOBJ authority to run this setup.

1. You must have appropriate ADTS/400 PTF mentioned above loaded and applied in order to perform this step. Sign on to the AS/400 server using your 5250 emulator & issue the following commands to restore the **ADTSLAB** library and to setup labs by calling the **LABSETUP** program:

> **RSTLIB SAVLIB(ADTSLAB) DEV(*SAVF) SAVF(QPDA/ADTSLAB)**
> **ADDLIBLE ADTSLAB**
> **LABSETUP USERS(1)**

Now wait for the message "Command completed successfully". If you don't receive this message then press PF10 to see the detailed messages, fix the problems & run the command again.

This will create a userid **JAVA01** with password **JAVA01**. It will also create **JAVA01** library and assign   proper authorities to the **JAVA01** userid.

2. Ensure that the user profile QUSER is enabled and password protected.

3. Issue the following commands on your AS/400 session.

> **STRTCPSVR *ALL**
> **STRHOSTSVR *ALL**

AS/400 Host Setup

Hardware Requirements:

An AS/400 system

Software Requirements:

OS/400 V3R7+ or V3R2+ with the latest PTF CUM tape installed
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Cleanup after running the labs

AS/400 Host Cleanup

Cleanup Instructions:

These host cleanup steps must be performed if you wish to repeat any LAB.

1. Make sure that everyone has signed off, and no one is running the LAB application that accesses the lab libraries on AS/400.

2. NOTE: You must have *SECADMIN and *ALLOBJ authority to run this setup.
   Move the focus to the AS/400 emulator & issue the following commands:
   > **ADDLIBLE ADTSLAB**
   > **LABCLEANUP USERS(1)**

   Wait for message "Command completed successfully". If you don't receive this message then press PF10 to see the detailed messages, fix the problems & run the command again.

Workstation Cleanup

Cleanup Instructions:

These workstation cleanup steps must be performed if you wish to repeat any LAB. Lets say we want to repeat LAB number 2:

1. Start **VisualAge for Java** session.

2. Select **VJ400LAB2** package of **VA Java for AS400 Labs** project, and right click on it. Select **Replace with Another Edition.** Select the original edition from the list of edition, and click **OK** to replace it. This may take few minutes.

3. Go to **Window** tag in **Workbench** window and bring up **Log** window and press clear button, then close it. Also Go to **Window** tag in **Workbench** window and bring up **Console** window and press clear button, then close it.

4. Save the workspace by clicking **File** menu and selecting **Save Workspace**.

Cleanup after running the labs

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Cleanup Instructions:

These host cleanup steps must be performed if you wish to repeat any LAB.

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2. **NOTE: You must have *SECADMIN and *ALLOBJ authority to run this setup.**
   Move the focus to the AS/400 emulator & issue the following commands:
   ADDLIBLE ADTSLAB
   LABCLEANUP USERS(1)
   Wait for message "Command completed successfully". If you don't receive this message then
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Removing labs library

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Cleanup Instructions:

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2. **NOTE: You must have *SECADMIN and *ALLOBJ authority to run this setup.**
   Move the focus to the AS/400 emulator & issue the following commands:
   > **ADDLIBLE ADTSLAB**
   > **LABCLEANUP USERS(1)**

   Wait for message "Command completed successfully". If you don't receive this message then press PF10 to see the detailed messages, fix the problems & run the command again.
   > **DLTLIB ADTSLAB**

Workstation Cleanup

Cleanup Instructions:

You can delete the project from the VAJava workspace. If you wish to do so, start VAJava and go to the **Workbench** window. Left click on "VA Java for AS400 Labs" project. Once selected, right click on it and select "Delete..." from the pop-up menu. Select OK to confirm the deletion.

Removing labs library

AS/400 Host Cleanup

Cleanup Instructions:

1. Make sure that everyone has signed off, and no one is running the LAB application that accesses the lab libraries on AS/400.
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