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## Lab 2 – Creating and Testing of a WebFaced Application within WebSphere Development Studio Client (WDS)

## Overall Lab Guide

The objective of the WebFacing lab is to use the WebFacing tool to create a browser based user interface, and then run this application as an e-business application. At the end of the lab, the student should know how to use the WebFacing Tool. The Lab will guide the student through most of the steps involved in the WebFacing process.

*Note: The pictures in these labs show a similar application being built. Some of the names and icons may be different from the environment you are working with.*

### **The Steps in this Lab**

1. Creating a WebFacing project in WDS
2. Convert the DDS to JSP's
3. Running the WebFaced Application in WebSphere Application Server Express V5.0 Test Environment in WDS

# 1. Creating a WebFacing Project

## Using the WebFacing Project Wizard

During this section of the Lab you will use the WebFacing tool project wizard inside the WDS Integrated Development Environment to create a new WebFacing project. This WebFacing project will then be used to facilitate the conversion of your DDS source and to test the generated output.

You will explore the WebFacing tool project wizard by:

- Invoking the WebFacing tool project wizard
- Stepping through the WebFacing tool project wizard pages
- Providing the correct input for the project wizard
- Start the creation of a new WebFacing tool project

## What You Should be Able to Do

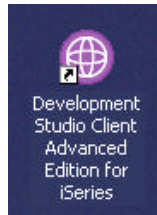
As a result of this exercise you will be able to create a new WebFacing Project.

- Start WDS
- Start the WebFacing tool project wizard
- Step through the project wizard pages
- Provide the correct information to the project wizard
- Browse through the new project in the IDE

1. **Invoking WebSphere Development Studio client (WDS)**

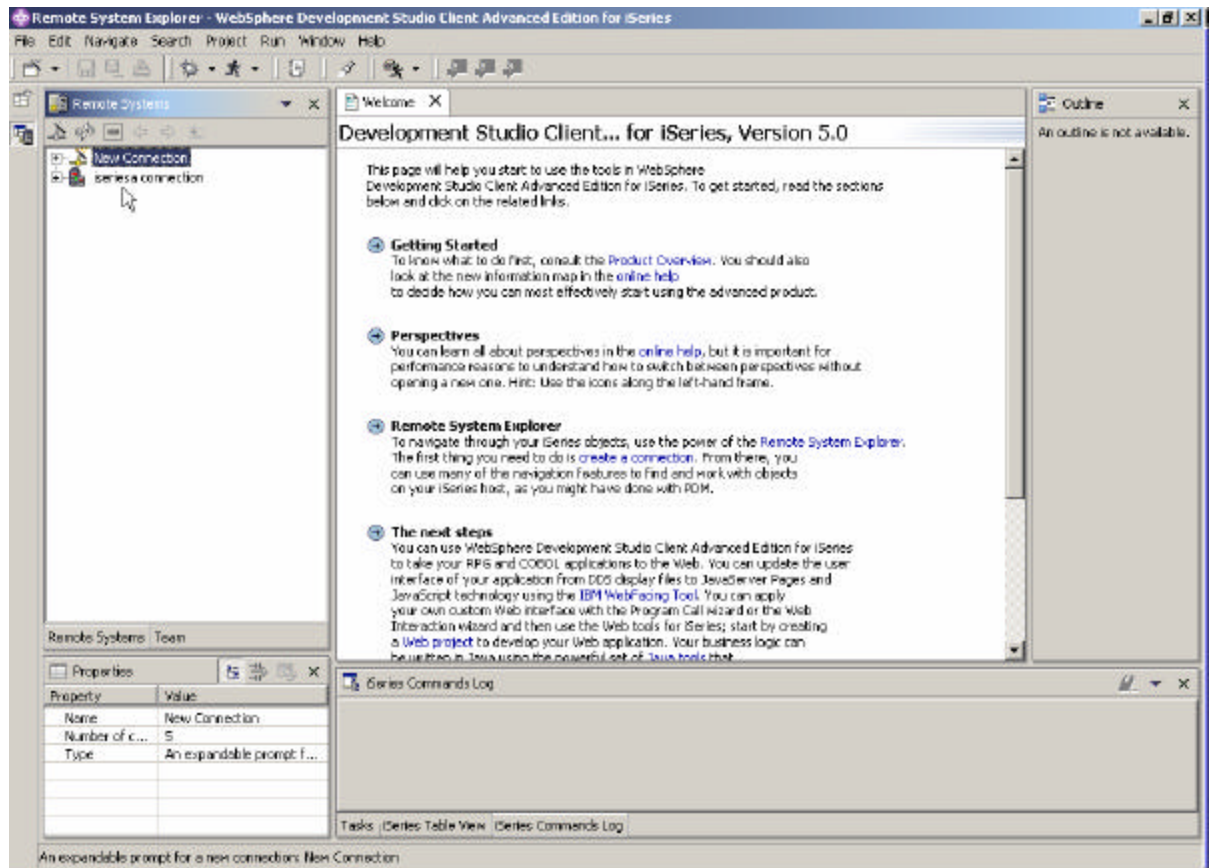
To start Development Studio client, Press the **Start** button on the task bar of your desktop

Choose *Start* → *Programs* → *IBM WebSphere Studio -> Development Studio Client Advanced Edition for iSeries*

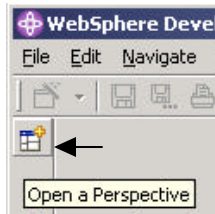


Or Click on the WDS icon on the desktop (if available)

After a few moments of loading, the workbench appears. If the workbench has been used previously it will already show a perspective. E.g. Remote Systems Explorer with the defined connection to iSeries server.



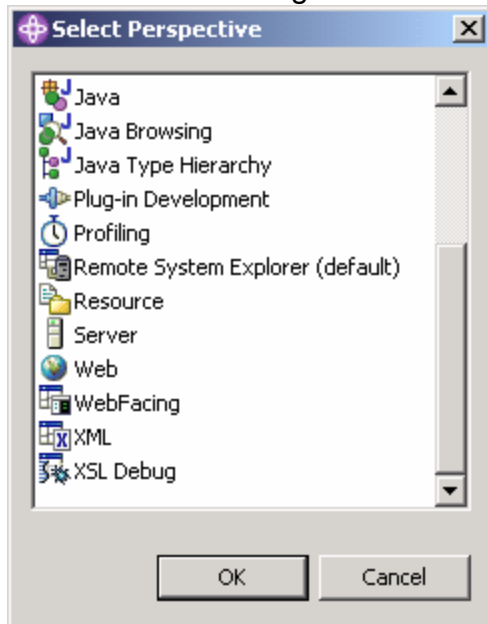
- \_\_ 2. **Start the WebFacing perspective**, by selecting the Perspective menu item on the workbench menu on the left hand side as shown below:



If there is a **WebFacing option** available on the submenu, select **WebFacing** and skip the next step.

**Otherwise** select the **Other....** option on the submenu

A list similar to the figure below will appear



Select WebFacing from the list

Press the **OK** pushbutton

- \_\_ 3. **Create Web Facing Project**
- Select the **File** option from the Workbench menu bar
  - Select **New** from the Menu pull down
  - Select **WebFacing Project** from the next sub menu

The **WebFacing project** wizard will appear

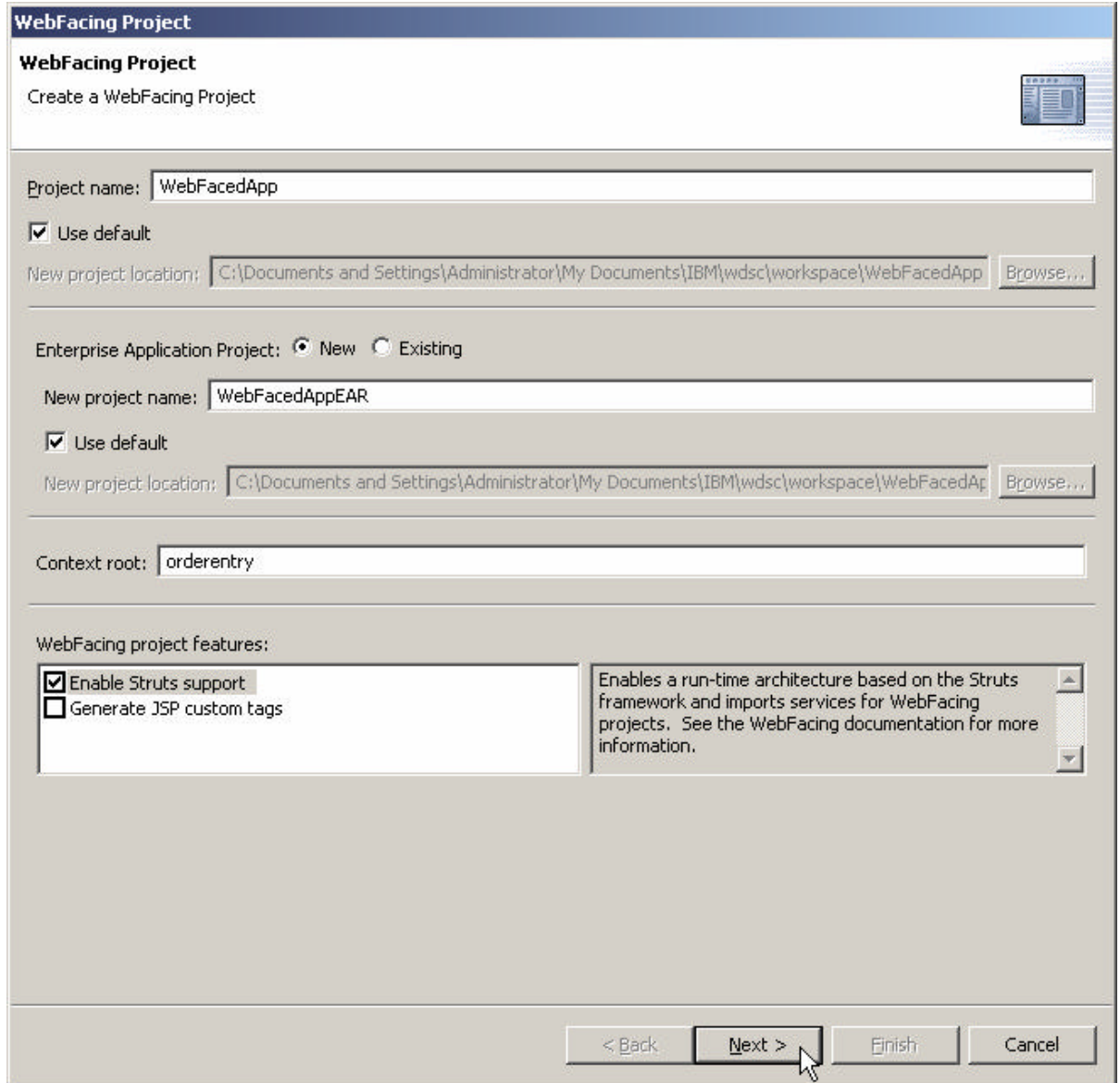
4. **WebFacing Project dialog**

Enter following details:

**Project name:** WebFacedApp

**Enterprise Application Project name:** WebFacedAppEAR

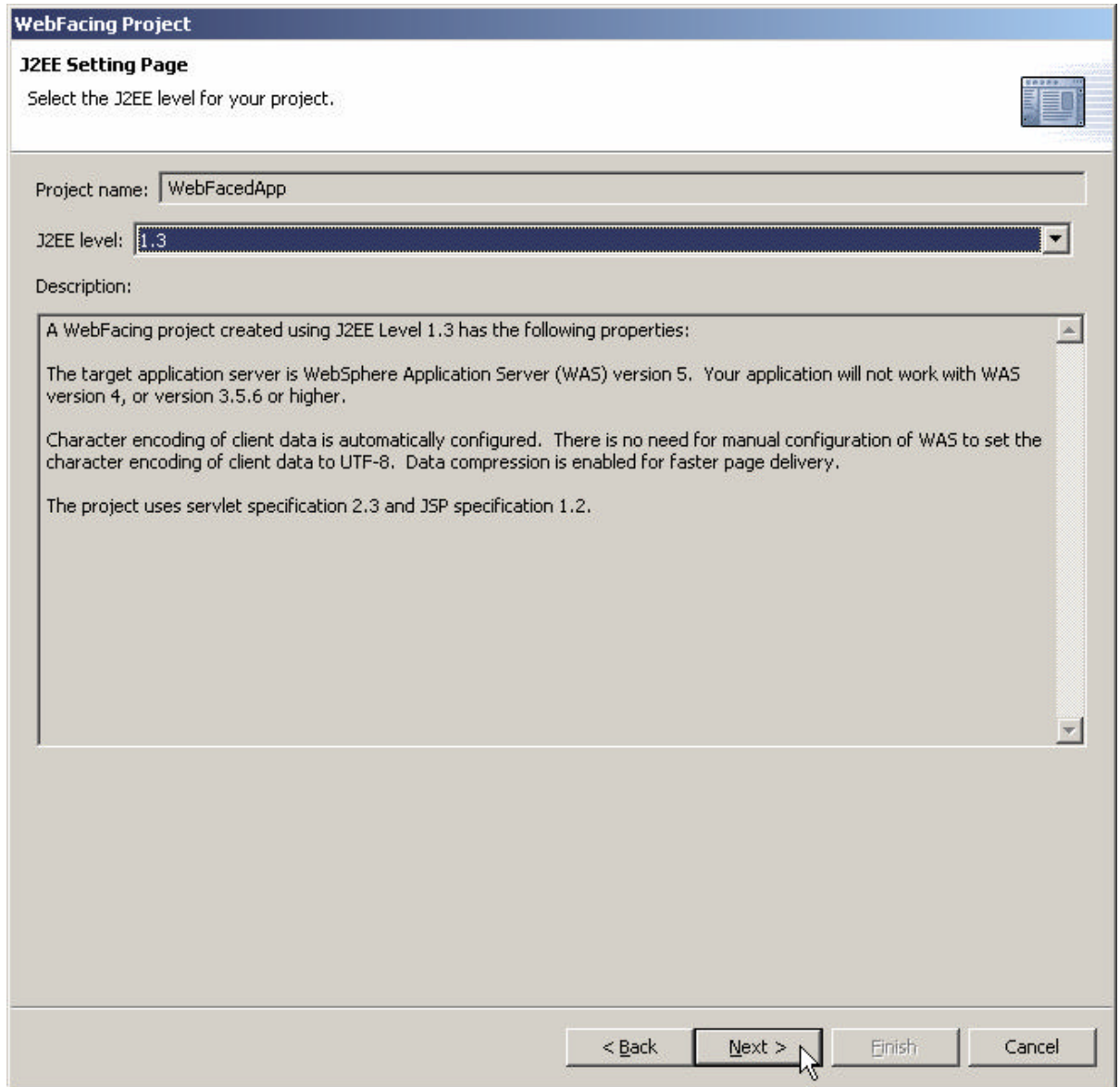
**Context Root:** orderentry



Click on **Next** push button

\_\_ 5. **Select the J2EE level**

On this second page you need to set the J2EE level. For our lab you will need to set it to 1.3.



Press the **Next** button.

\_\_ 6. **The Select display file source members to convert dialog**

On this page of the new project wizard you need to specify where your DDS source is located. Specifically, the WebFacing tool needs to know:

- Server name
- Library name

- Source file name
- Member name

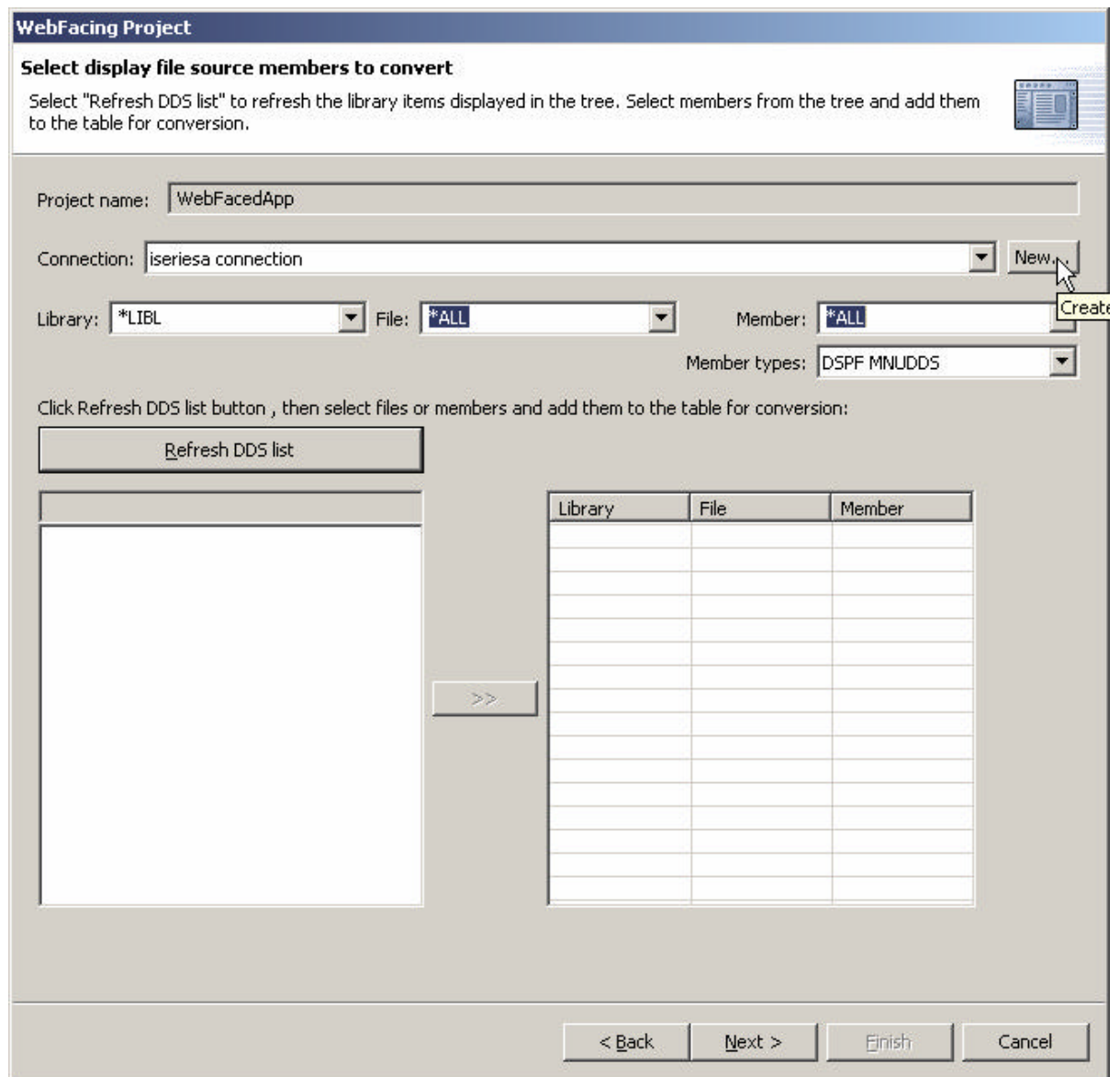
You need to specify the **server name** to be used in the **connection** combination box

**Select** the correct iSeries server (Refer to Lab Information Sheet) from the drop down combination box list

**If your assigned server name appears** in the list, select it and skip to the next step:

**If the list does not** contain your assigned server name, you need to add the server to the list.

You do this by, Pressing the **New...** push button to the right of the Connections box.





When the **New Connection** dialog appears,

**New**  
**Remote iSeries System Connection**  
Define connection information

Parent profile: Team

Connection name: iseriesa connection

Host name: ISERIESA

Description:

Verify host name

< Back   Next >   Finish   Cancel

**Select Parent Profile:** Team

**Enter Connection Name:** Enter connection description

**Enter the Host Name:** iSeries Server Name

**Enter Default User ID:** iSeries User ID

Press the Finish push button in the **New Connection** dialog.



- Expand it by clicking on the **+** sign beside the library name
- Select source file **RPGAPP** (containing DDS source physical file members) from the expanded list
- Expand RPGAPP
- Select **all** members from the list
- Press the **>>** push button in the middle to copy the selected members over to the list of selected members
- Press the **Next >** push button at the bottom of the *Select Display file source* dialog to proceed to the next wizard page.

Now the WebFacing tool knows which DDS members to convert for this project.

The **Select UIM source members to convert** dialog appears

If you have UIM help panels you can specify the source locations of the source members on this page of the project wizard, since in this application we don't have UIM help, you can just skip this panel

Press the **Next >** push button at the bottom of the *Select UIM source* dialog to proceed to the next wizard page.

## \_\_ 8. **The Specify CL commands Page**

You will now provide the information that will allow the WebFacing wizard to create the initial **index.html** page to start the Order Entry application.

Remember what you keyed in on the command line in the 5250 emulation during the previous exercise to start the order entry application?

In case you forgot, it was: **CALL ORDENTR**

The WebFacing runtime needs to know the invocation command for your application in order to send this invocation command to the iSeries to start your application from the browser.

The following page in the WebFacing project wizard will allow you to specify the necessary information

**WebFacing Project**

**Specify CL commands**

Enter the CL commands that are used in your application, the command labels you want to use, and the signon preference for the generated hypertext links.

Project name:

WebFacing generates hypertext links that you can use to launch your application from the web. In order to do this, it needs to know the text that will be shown for each link and the CL command that each link will invoke. On this page you can define multiple links, in case several CL commands are used to launch your application.

If your program requires interactive parameters you should also enter them in the command line. For example: to invoke program MYPGM with a part number parameter, you would enter CALL MYPGM PARM('&part') as the CL command. The variable "&part" will be replaced when you click on the invocation link. For details, refer to the generated index.html file.

CL command:

Command label:

Prompt for signon

Sign on with specified values

User ID:

Password:  Confirm password:

CL Command	Command Label	User ID
CALL ORDENTR	Order Entry Applica...	*PROMPT

Buttons: Add, Modify, Delete, Move Up, Move Down, < Back, Next >, Finish, Cancel

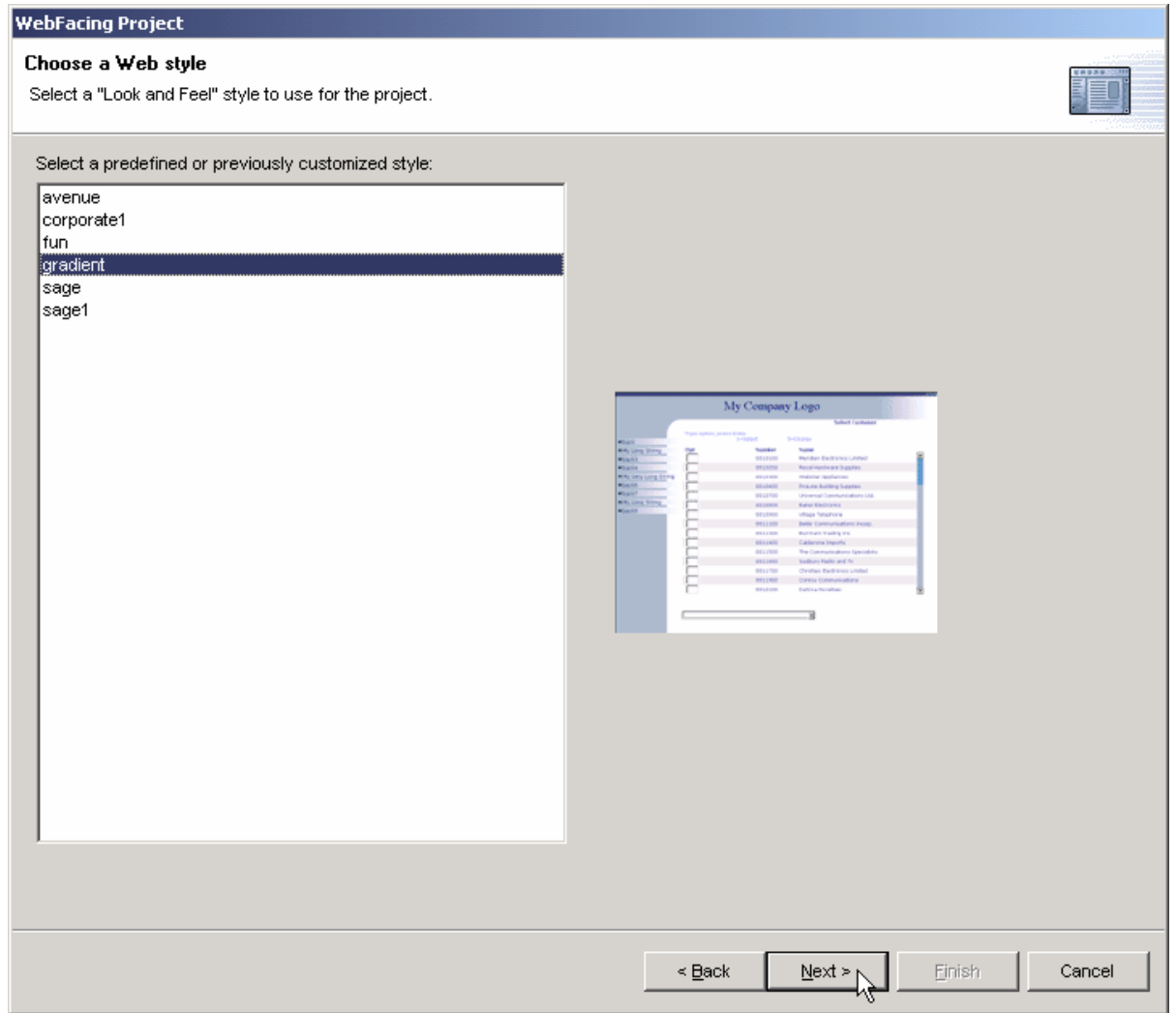
- Key in: **CALL ORDENTR** into the CL command entry field
- Key in: **Order Entry Application** into the Command Label entry field
- **Leave Prompt for Signon radio button checked** so that it will prompt for userid and password before invoking the CL command.
- Press the **Add** push button on the right side of the dialog.

Make sure the text and command you keyed into the entry fields is shown in the list at the bottom of the dialog

- Press the **Next >** pushbutton on this project wizard page

## \_\_ 9. The Choose a Web style Page

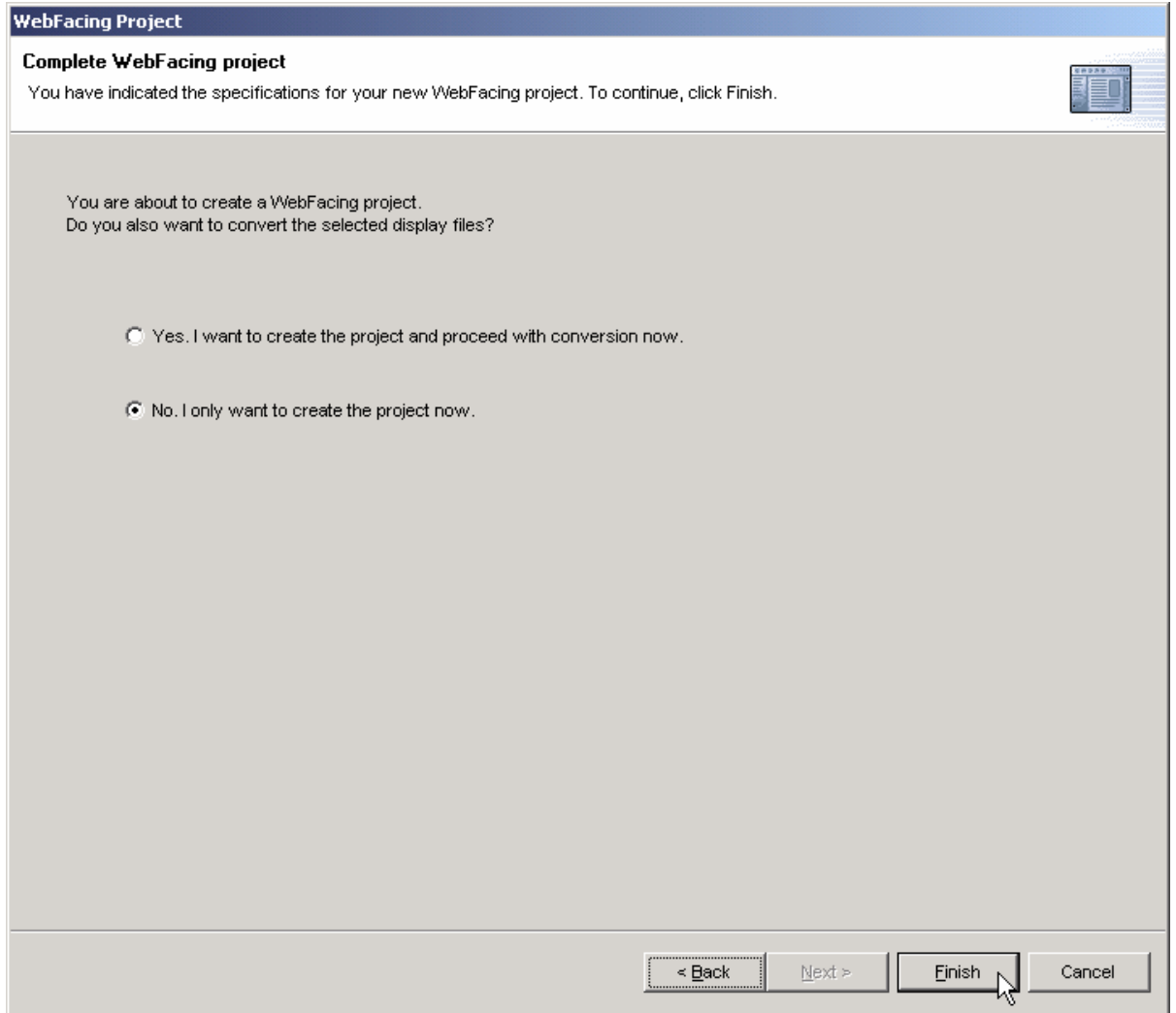
The upcoming page allows you to select a Web style for your converted screens



- Select any style from the list of available styles
- Press the **Next >** push button at the bottom of this dialog

## \_\_ 10. The Complete WebFACING Project page

At this point we want you to just create the project, we don't want you to convert the source now. Conversion is part of the next exercise.



- Select the **No, I only want to create the project now** radio button
- Press the **Finish** push button

This completes the project set-up exercise. After all necessary components of the project are created you will be back in WebFacing Perspective.

**You are now ready to convert and run your application.**

## 2. Convert Selected Members

### Converting selected DDS members

During this exercise you will start the conversion of the DDS source that you selected in the previous lab

The following tasks will be covered in this lab:

- Selecting DDS source to convert
- Starting the conversion
- Work with the conversion log

As a result of this exercise, you will have created the JSPs, XML data bean definitions, and several other files needed for the WebFaced application.

### What You Should be Able to Do

As a result of this exercise you will be able to use the **WebFacing tool** to convert selected DDS source members.:

Use the WebFacing tool to select certain members for conversion

Use the WebFacing tool to start the conversion process

Analyze the conversion logs

## Using the WebFacing tool to Start the Conversion

\_\_ 1. In the **WebFacing perspective**, Select the project you have been working on in the previous exercise **WebFacedApp**

- Expand this project by **clicking** on the **+** sign beside its icon in the tree view
- You should see an icon named **DDS** in the expanded tree

If you **don't** see a **DDS** folder:

You might be in the **Navigator** view,

- Check the **pane title bar**,

If it shows **Navigator**,

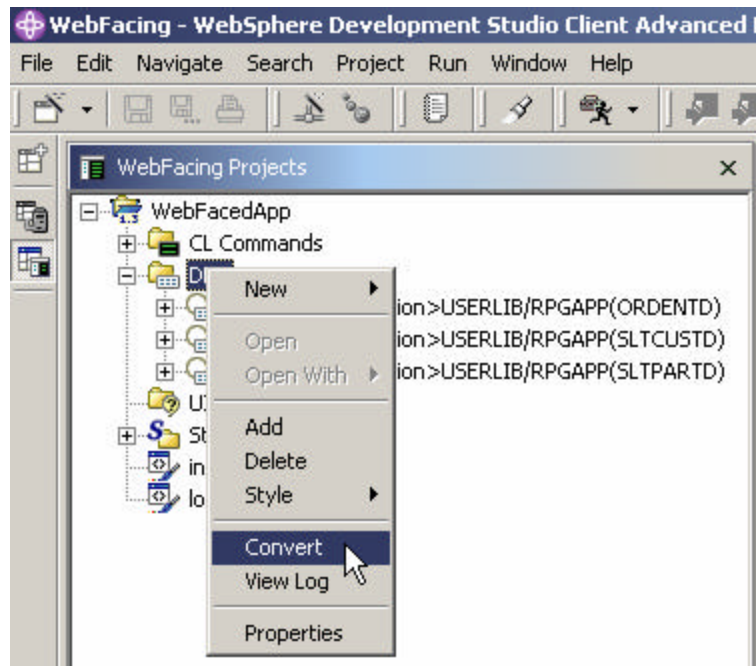
- Locate the **WebFacing projects** Tab at the **bottom** of the list pane
- Click on it.

Now the **WebFacing projects** view should be active and you should be **able** to locate the **DDS** folder.

\_\_ 2. Expand the DDS folder by **clicking** on the **+** sign, beside it

You should see all **3 members** that you selected in the previous exercise.

Since you are converting all members in the project you can work with the **DDS folder icon**, Right mouse **click** on the **DDS** folder icon





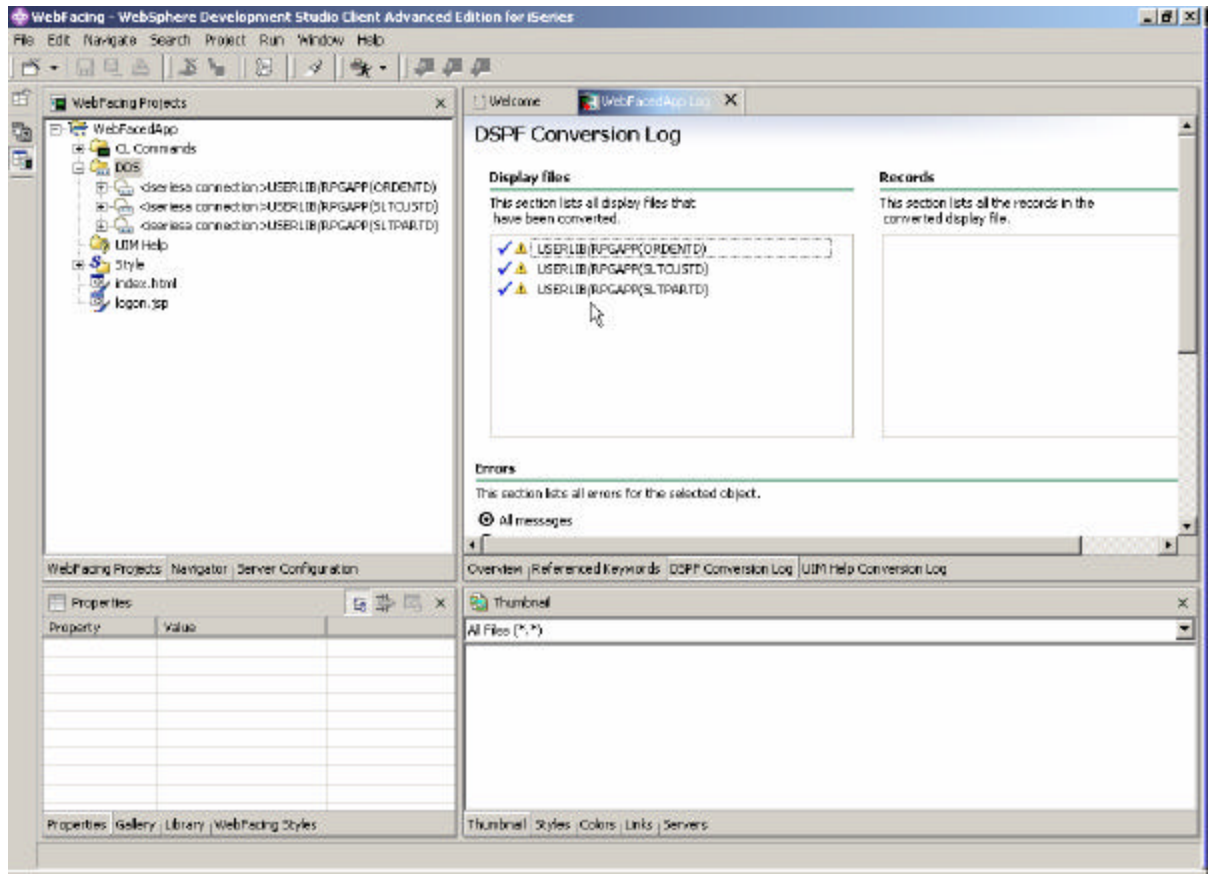
Select **Convert** from the pop up menu

The conversion process starts.

(You **may** be prompted for a signon and password. Look for the screen and use your team id and password, if you don't see a prompt, it is OK, just continue.)

*Wait until the conversion finishes*

\_\_\_ 3. Notice the conversion log in the right hand pane,



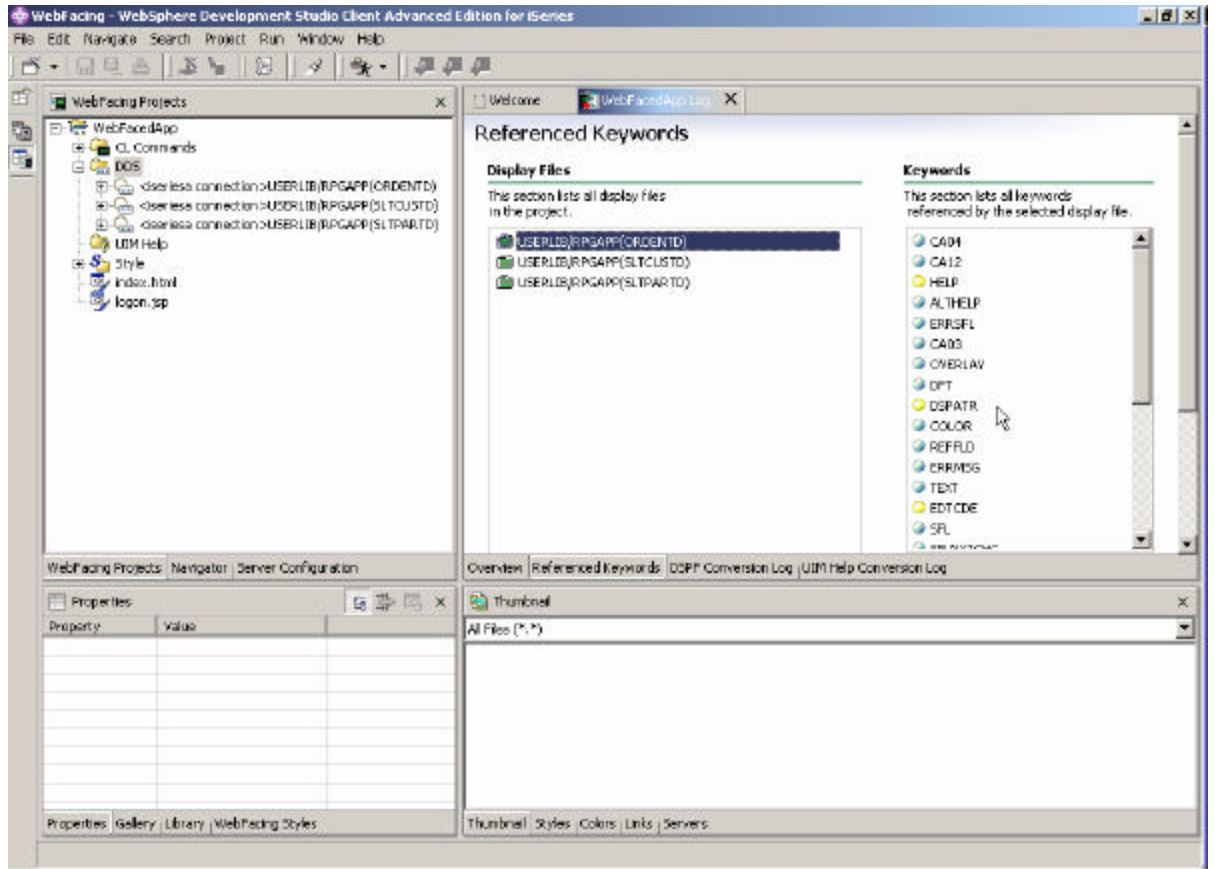
Check the log

At the bottom of the log are tabs,

- Overview
- Referenced Keywords
- DSPF Conversion Log
- UIM Help Conversion Log

On these pages you can get more details on the conversion

e.g. Referenced Keywords



Check out the information on the other Log pages

Then proceed to the next lab exercise and run the application with its new User Interface.

## **3. Running the WebFaced Application**

### **Running the WebFaced application**

During this exercise you will use the **Websphere Application Server Express V5.0 test environment** that is embedded in WDS. Using the test environment will make the process of testing your application a lot easier than doing the testing in a remote Websphere Application Server Express V5.0 environment. After you have tested your application you would move the files and use Websphere Application Server Express V5.0 on a Server to do the final testing and then move the files from the WebFacing conversion onto your production Websphere Application Server Express V5.0 environment.

The following tasks will be covered in this lab:

- Starting the application in the test environment
- Selecting the correct link on the invocation index.html page to invoke the WebFaced application
- Using the WebFaced application

As a result of this exercise, you will specify in the WebFacing perspective that you want to run your project in the WDS test environment. From the initial web page you will select the link created by the WebFacing tool to invoke the WebFaced application.

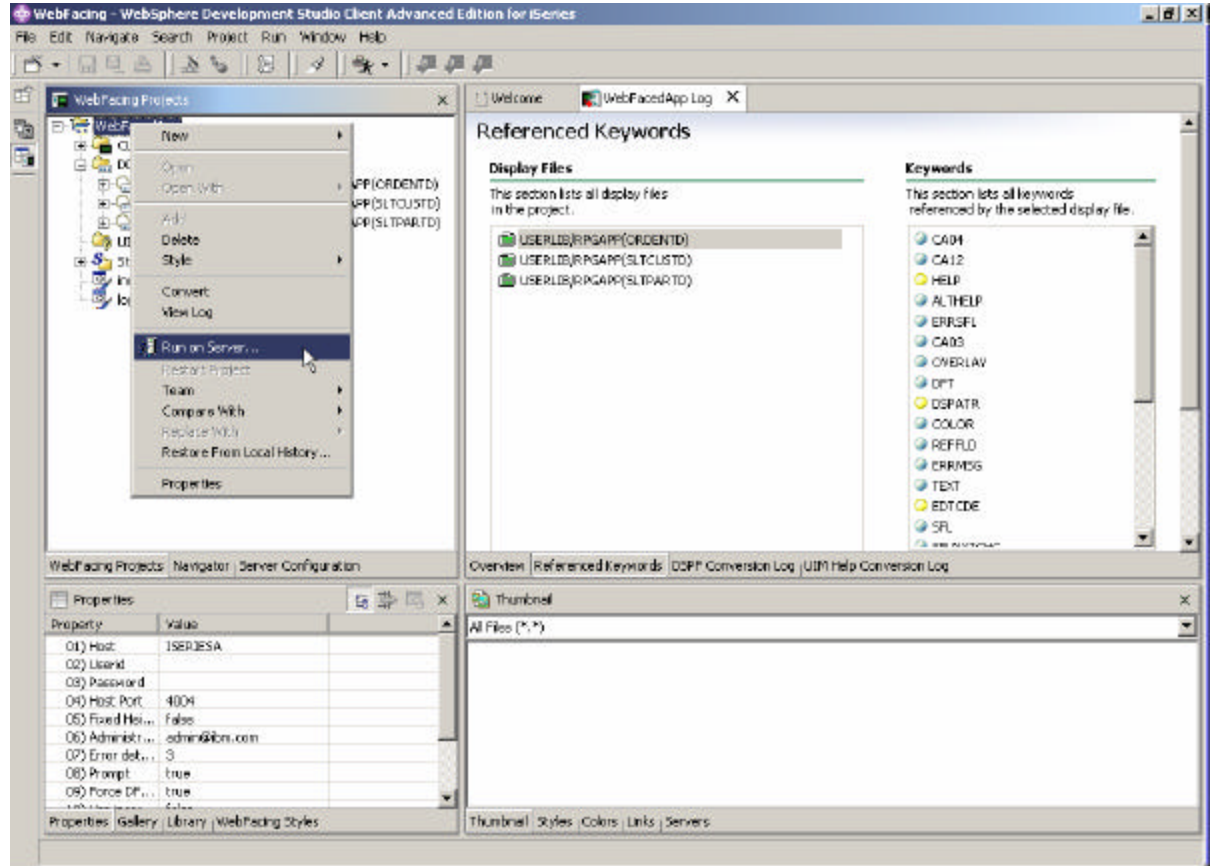
### **What You Should be Able to Do**

As a result of this exercise you will be able to load the initial invocation page and invoke the WebFaced application in the browser that is included in WDS. You will understand how to navigate through the converted User Interface.

- Use the Websphere Application Server Express V5.0 test environment to run the Web Application
- Select the Link on the invocation web page to invoke the RPG application
- Use the html based user interface to step through the WebFaced application

1. Using the Websphere Application Server Express V5.0 test environment to show the Index.html page

- Right mouse click on the **WebFacedApp** project icon



- Select **Run on server** from the pop up menu

A Server Selection pop up window will ask for you to use existing server or create a new server.

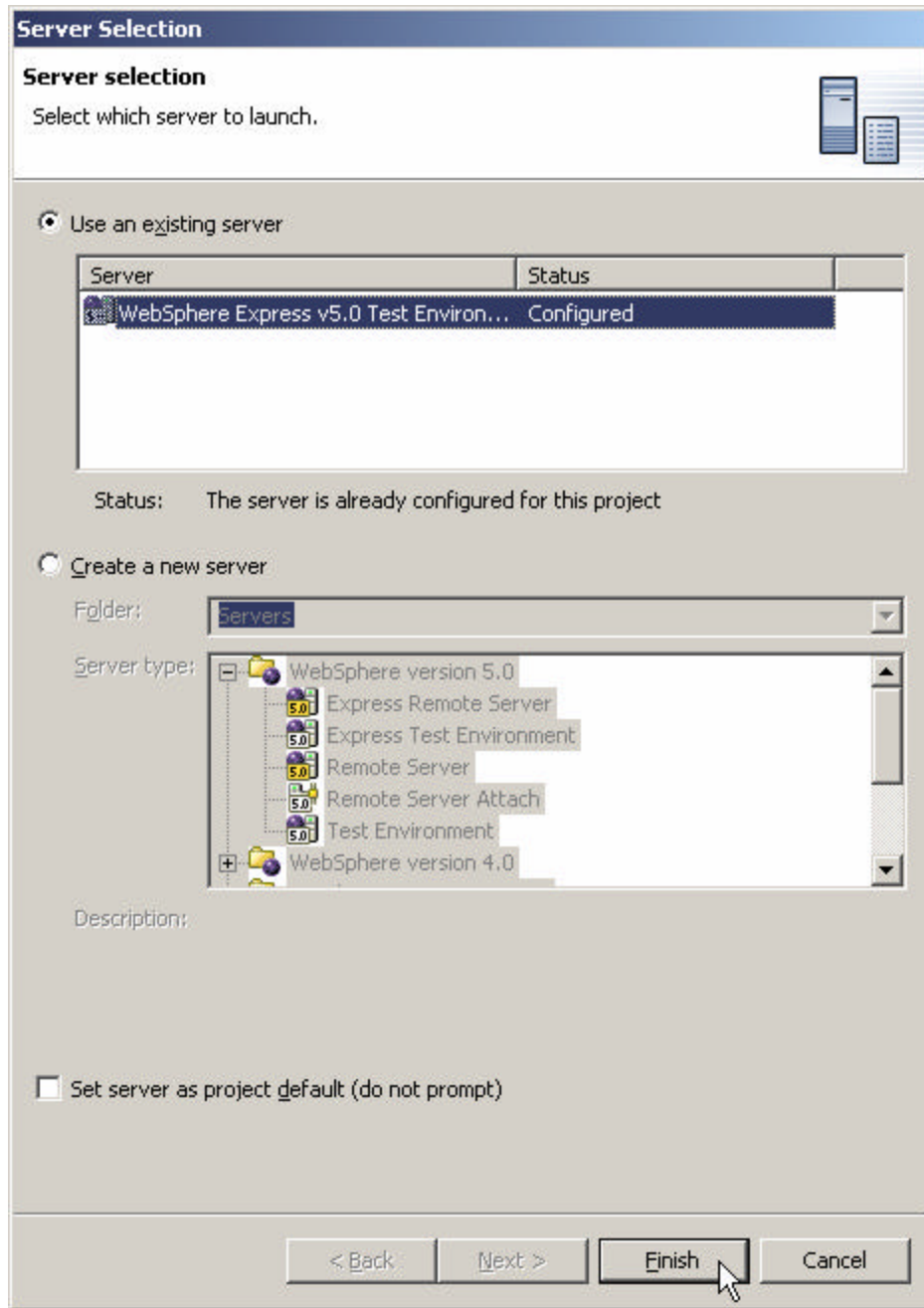
If you already have WebSphere Application Server Express V5.0 Test Environment configured then

**Select WebSphere Application Server Express v5.0 Test Environment (Status: Configured)** under Use an existing server.

**OR**

**Select Create a new Server radio button** and **Select Express Test Environment** under WebSphere Version 5.0 (You may have to click on the + sign next to it to display the various server options)

**You may also select Set Server as project default (do not prompt) radio button** as we will be using the same test environment throughout this lab.

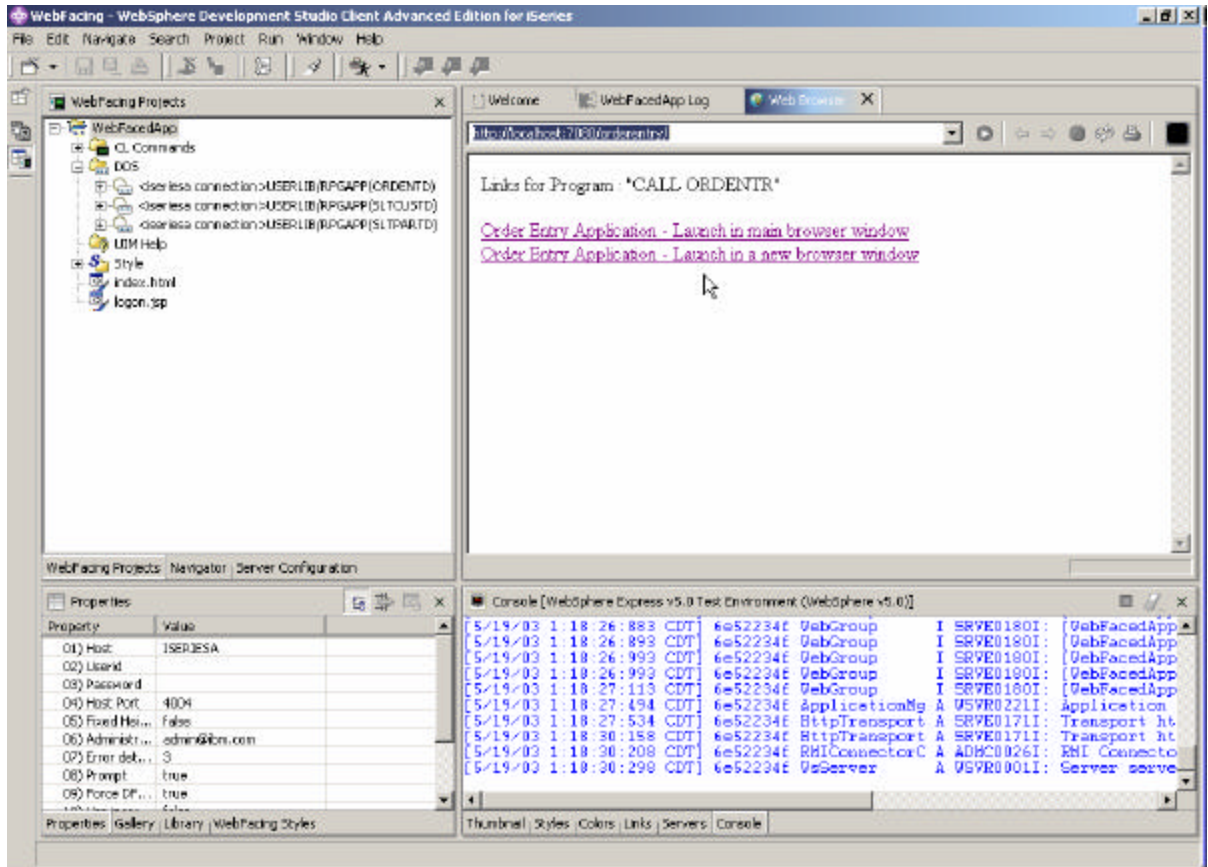


Click **Finish**.

After a few moments (be patient), the WebSphere application server will be started in WDS on your PC.

- The browser will appear in the right hand pane of the workbench

You will see the **index.html** page that has been generated by the WebFacing Tool.

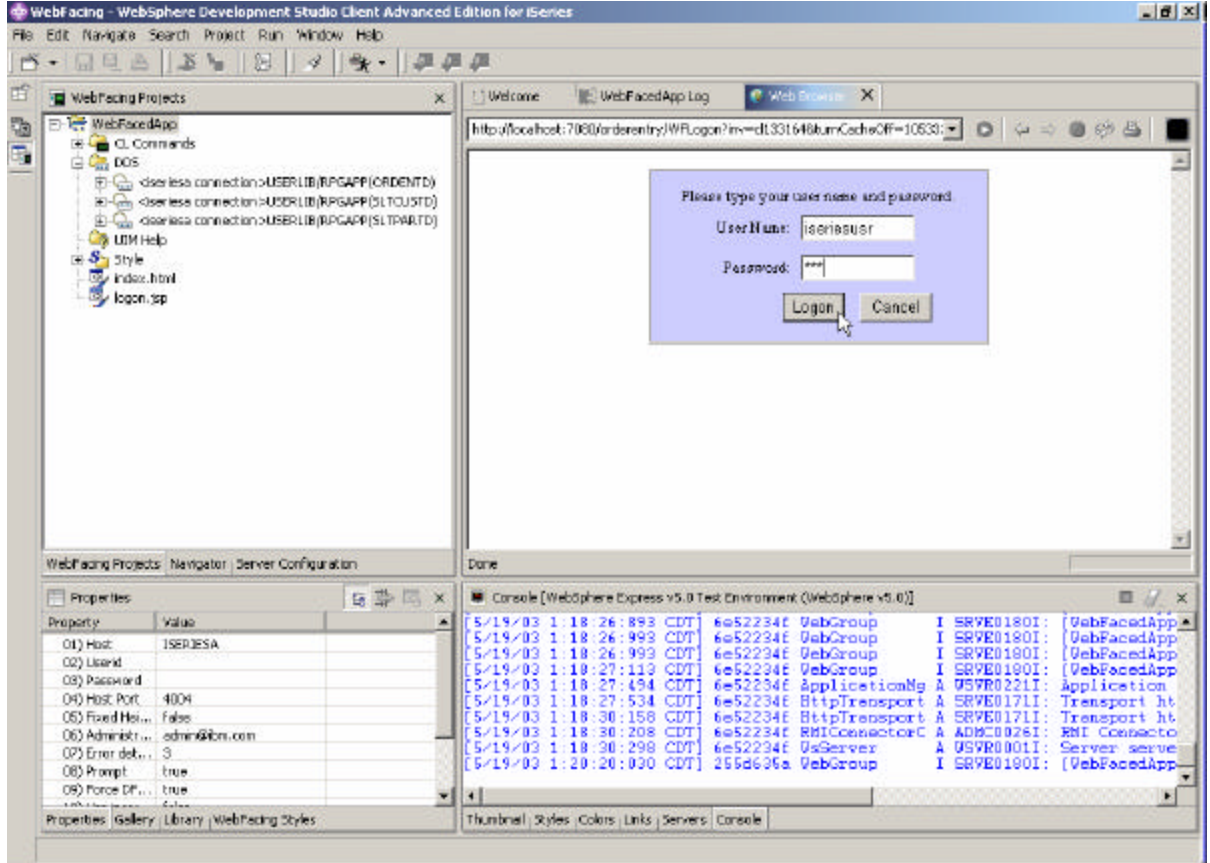


- In your browser pane click on the top **Order Entry Application** link



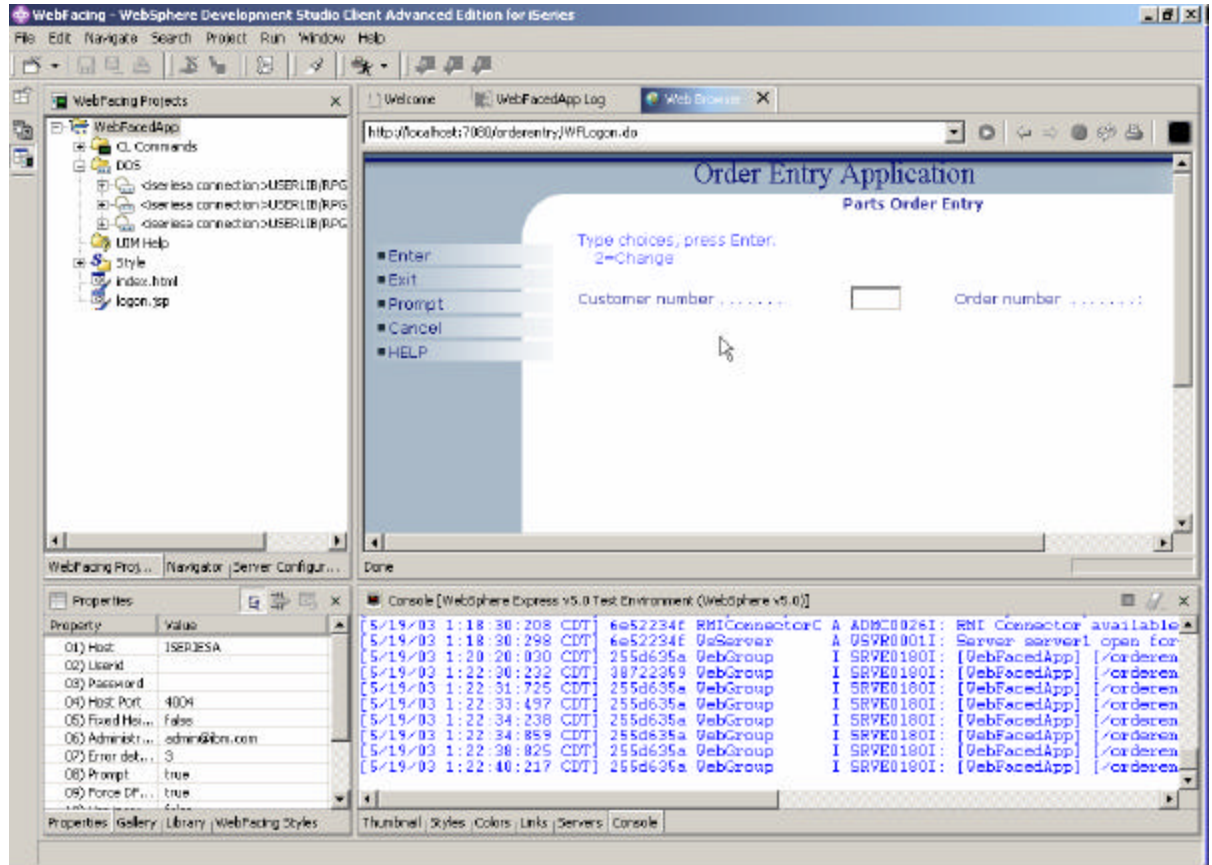
## IBM WebFacing Tool – Creating and Testing WebFaced Application within WDS

- Sign on with your iSeries user name and password when prompted.



**Click on Logon**

- After a few moments you will see the following screen. (Keep in mind the first time the JSPs is requested it has be compiled into a Servlet, if you run the application a second time you will see performance is improved)
- You will see the first WebFaced screen of your application.



Press the **Prompt** push button

Select a **customer** from the pop-up window (subfile)

Go through the same steps as in **exercise 1** in the beginning of the Lab and try the different options to create an order.

***Congratulations, you have completed basic lab to convert RPG application to WebFaced Application and Tested in WebSphere Development Studio Client (WDS).***