

IBM RATIONAL APPLICATION DEVELOPER 6.0 – LAB EXERCISE

Building and Testing a Portal

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What this exercise is about

In this lab, you will build a portlet in Rational Application Developer v6.0 using the Struts Portlet Framework. After you have finished designing and implementing your portlet, you will test it using the WebSphere Portal v5.0 Test Environment in Rational Application Developer.

Lab Requirements

List of system and software required for the student to complete the lab.

- IBM Rational Application Developer v6.0 with the Portal Tools Additional Feature selected
- WebSphere Portal Server v5.0.2.2 Test Environment
- The lab source files LabFiles60.zip must be extracted to the root directory C:\

What you should be able to do

At the end of this lab you should be able to:

- Build a portlet application using the Struts Portlet Framework included by the WebSphere Portal Server
- Test a portlet application in the Portal Test Environment

Introduction

In this lab, you will design a portlet that displays basic contact information; you can think of it as an address book. The main page of the View Mode is simply a list of contacts. When the user clicks on the name of a specific contact, the portlet displays detailed information about that contact. The Edit mode works mostly the same way, but clicking on a specific contact allows the user to modify that contact's information.

Exercise Instructions

Some instructions in this lab may be Windows operating-system specific. If you plan on running the lab on an operating-system other than Windows, you will need to execute the appropriate commands, and use appropriate files (.sh vs. .bat) for your operating system. The directory locations are specified in the lab instructions using symbolic references, as follows:

Reference Variable	Windows Location	AIX/UNIX Location
<WAS_HOME>	C:\WebSphere\AppServer	/usr/WebSphere/AppServer /opt/WebSphere60/AppServer
<IRAD_HOME>	C:\Program Files\IBM\Rational\SDP\6.0	
<LAB_FILES>	C:\Labfiles60	/tmp/Labfiles60
<TEMP>	C:\temp	/tmp
<LAB_NAME>	IRAD_Portal	

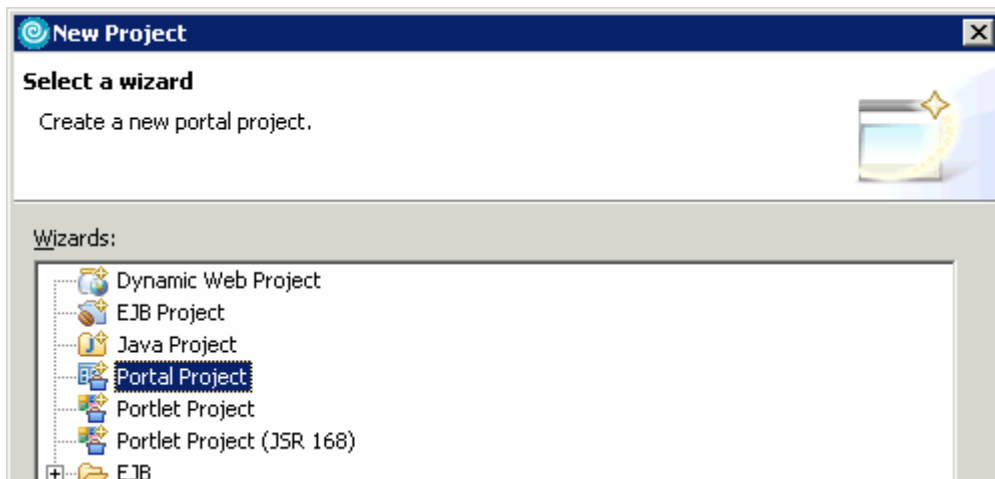
Windows users please note: When directory locations are passed as parameters to a Java program such as EJBdeploy or wsadmin, it is necessary to replace the backslashes with forward slashes to follow the Java convention. For example, C:\LabFiles60\ would be replaced by C:/LabFiles60/

Part 1: Creating a New Portal Project

- ___ 1. Start Rational Application Developer.
 - ___ a. Select **Start > Programs > IBM Rational > IBM Rational Application Developer V6.0 > Rational Application Developer**.
 - ___ b. A dialog box will be displayed allowing you to select the location where you would like the workspace directory to be stored. Enter **<LAB_FILES>\<LAB_NAME>\workspace** for the location and select **OK**. Application Developer will start with an empty workspace. An empty workspace will leave your existing workspace untouched and help avoid name conflicts between what you may already have in your workspace and what you will be creating in this lab.

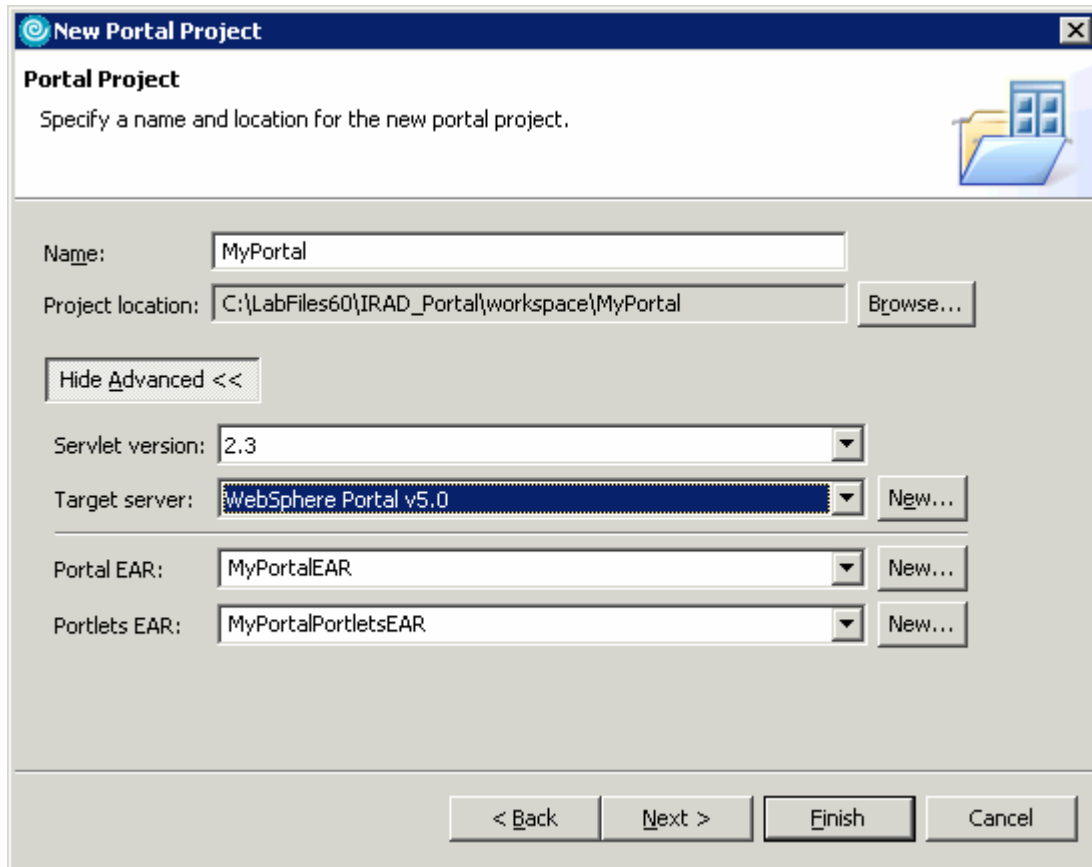
NOTE: If the Auto Launch Configuration Change Alert window appears click the **Yes** button to change the auto launch eclipse instance to use when opening IBM Rational Software Development Platform in the future.

- ___ 2. When Rational Application Developer v6.0 opens, close the welcome page.
- ___ 3. Create a new portal project. The portal project contains resources that affect the structural (portal site layout) and stylistic (themes and skins) framework of a portal.
 - ___ a. Click **File > New > Project....** The New Project wizard opens.
 - ___ b. In the Select a wizard panel, select **Portal Project** and click **Next >**.



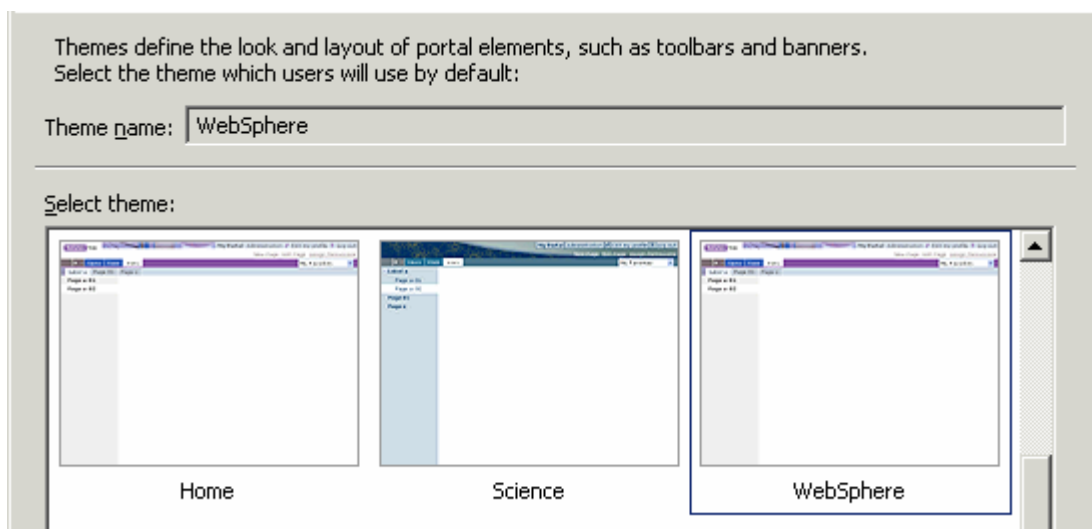
- ___ c. In the Confirm Enablement window, read the message and click **OK**. Creating a Portlet project requires that advanced Web Development capabilities be enabled within Application Developer.

- ___ d. On the Portal Project panel, enter **MyPortal** in the Name field. Click **Show Advanced >>** to show the advanced properties of the portal project wizard. Verify that the Target server field is set to **WebSphere Portal v5.0**. Click **Next >**.



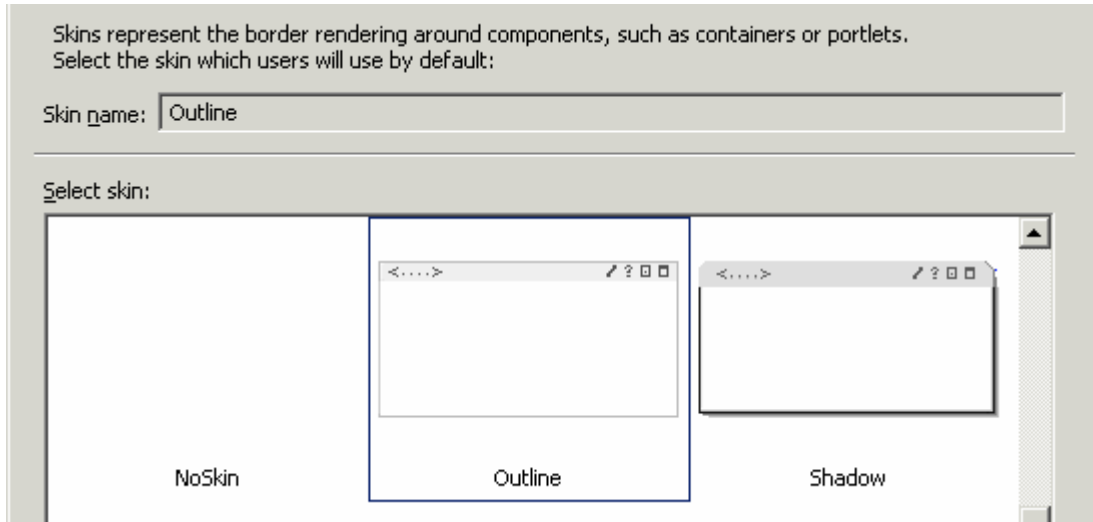
- ___ e. In the Select Theme panel, ensure that the **WebSphere theme** is selected (see the screen shot below) and click **Next >**.

NOTE: Later in the lab, you will use Portal Designer to modify your portal's theme.



- ___ f. In the Select Skin panel, ensure that the **Outline skin** is selected (see the screen capture below) and click **Finish**.

NOTE: Later in this lab, you will use Portal Designer to modify the skins used in your portal.



- ___ g. In the Confirm Perspective Switch window, read the message and click **Yes**. Portal projects are associated with the Web Perspective within Application Developer.
- ___ h. The portal project will be created and the portal's configuration file will be opened in the Portal Designer editor (see the screen capture below).



- ___ i. **Close** the Portal Designer editor.

___ 4. Observe the default settings of the new Portal project.

- ___ a. In the Project Explorer view, expand **Dynamic Web Projects > MyPortal**. Use the table below as a reference for the different entries under the MyPortal project.

Entry Name	Description
Portal Configuration	Shortcut to the portal configuration file (ibm-portal-topology.xml). The actual portal configuration file can be found by expanding MyPortal > Portal Configuration.
Themes	Shortcut to the themes within the PortalContent folder.
Skins	Shortcut to the skins within the PortalContent folder.
Portal Configuration	Expand the Portal Configuration folder to see the portal configuration file (ibm-portal-topology.xml).
PortalContent	Folder contains the resources that affect a portal's structure and style. Access files from this folder if you can not access them through the use of the shortcuts above.

Part 2: Import Pre-created Portlet Applications

In this part, you will import pre-created portlet applications. The portlet applications will be used in creating your portal.

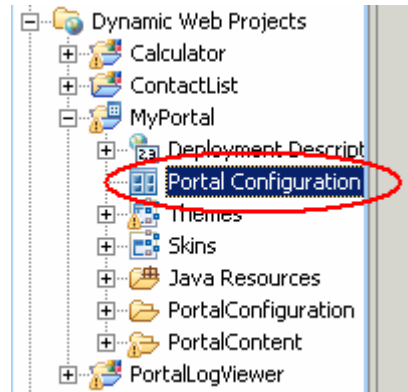
- ___ 1. Import an EAR that contains the completed portlet.
 - ___ a. Select **File > Import...** The Import wizard will open up.
 - ___ b. In the Select panel, select **EAR file** and click **Next >**.
 - ___ c. In the Enterprise Application Import panel, for the EAR file field enter **<LAB_FILES>\<LAB_NAME>\PortletsEAR.ear**. Change the Target server field to **WebSphere Portal v5.0**. Click **Finish**.
 - ___ d. In the Confirm Perspective Switch window, read the message and click **No**.
- ___ 2. Explore the portlet applications that were imported.
 - ___ a. In the Project Explorer view, expand **Dynamic Web Projects**. The table below describes the portlets that are included in each of the dynamic web projects.

Entry Name	Description
Calculator	Calculator portlet displays a simple calculator. Contains view, edit and help modes.
ContactList	Contains two portlets: <ul style="list-style-type: none"> • Welcome portlet – Displays welcome portlet • ContactList portlet – Displays an address book with contact information. Contains view and edit modes.
PortalLogViewer	Portal Log Viewer portlet displays the portal server's logs within the portal. Contains view, edit and help modes.

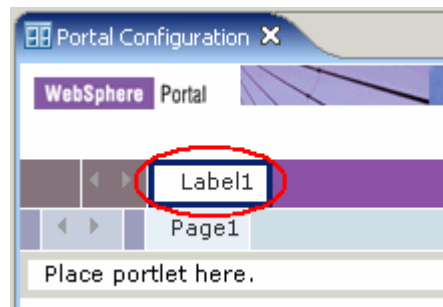
Part 3: Create Portal Using Portal Designer

In this part, you will use Portal Designer to create a portal using the portlets imported in the previous part.

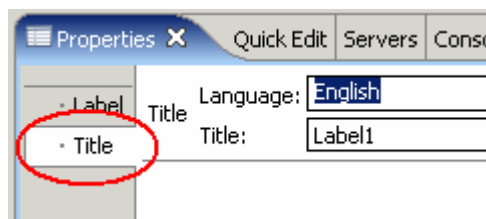
- ___ 3. Open the portal configuration.
 - ___ a. Ensure that you are in the Web perspective. Click **Window > Open Perspective > Web**.
 - ___ b. In the Project Explorer view, ensure **Dynamic Web Projects > MyPortal** is expanded. Double-click on **Portal Configuration** to open the portal configuration file in Portal Designer.



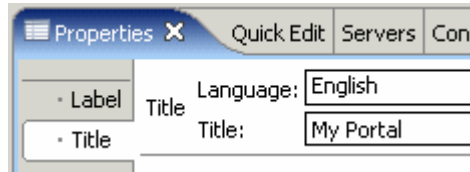
- ___ c. The portal's configuration file is opened in the Portal Designer editor.
- ___ 4. Change the title of "Label1" to **My Portal**.
 - ___ a. In Portal Designer, select "Label1" by left-clicking on it (see the screen capture below).



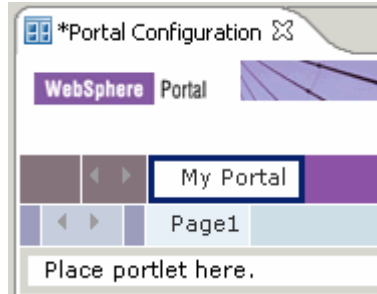
- ___ b. Switch to the Properties view by selecting **Window > Show View > Properties**.
- ___ c. In the Properties view, select the **Title** tab (see the screen capture below).



- ___ d. Edit the label's title. In the Title field change the text to be **"My Portal"** (see the screen capture below) and press Enter. Note that the label's title in Portal Designer has changed.

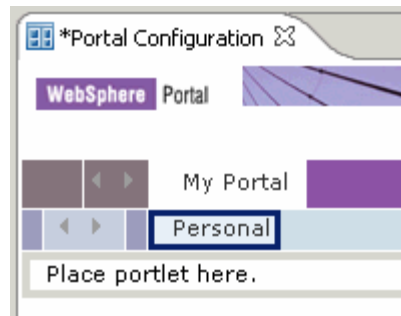


- ___ e. The end result will look like the screen capture below.



- ___ 5. Change the title of "Page1" to **Personal**.

- ___ a. In Portal Designer, select "Page1" by left-clicking on it.
- ___ b. In the Properties view, select the **Title** tab (see the screen capture below).
- ___ c. Edit the page's title. In the Title field change the text to be **Personal** and press Enter. Note that the page's title in Portal Designer has changed.
- ___ d. The end result will look like the screen capture below.



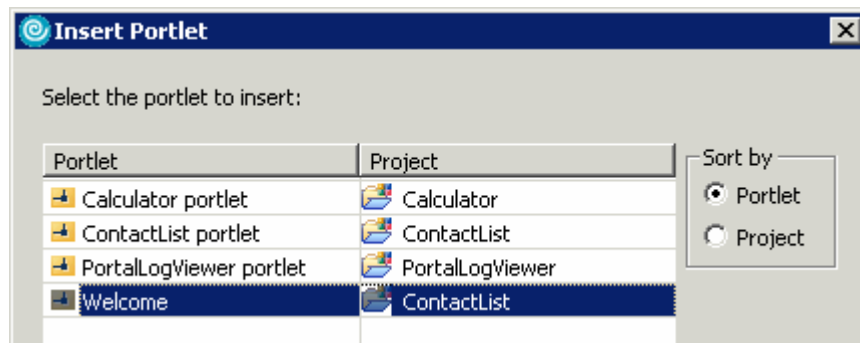
- ___ 6. Add the "Welcome" portlet to the portal.

- ___ a. In the Palette view, ensure that the **Portal** drawer is open. **Drag-and-drop a Portlet onto the “Place portlet here”** text in Portal Designer. See the screen capture below for an illustration.

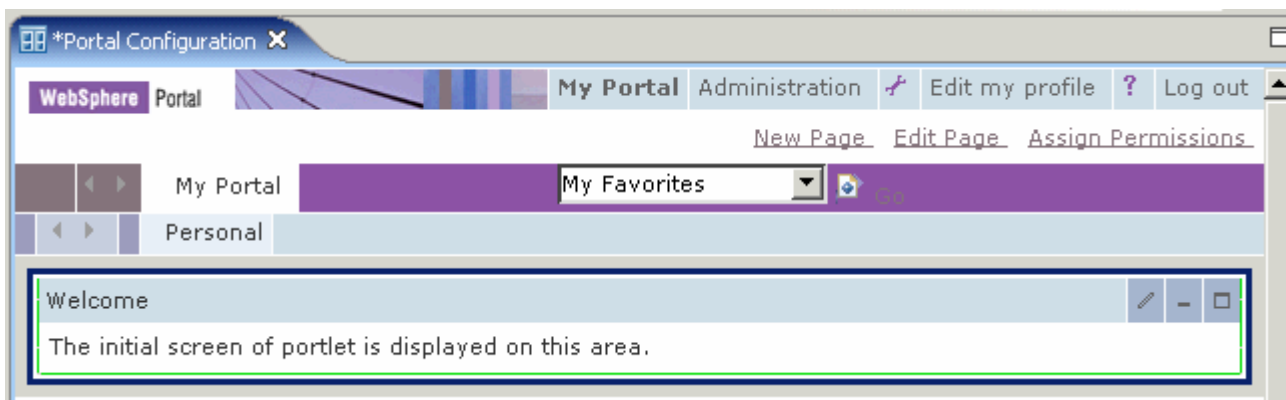
NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a “+” sign under the mouse cursor.



- ___ b. In the Insert Portlet window, select **Welcome** (see the screen capture below) and click **OK**.



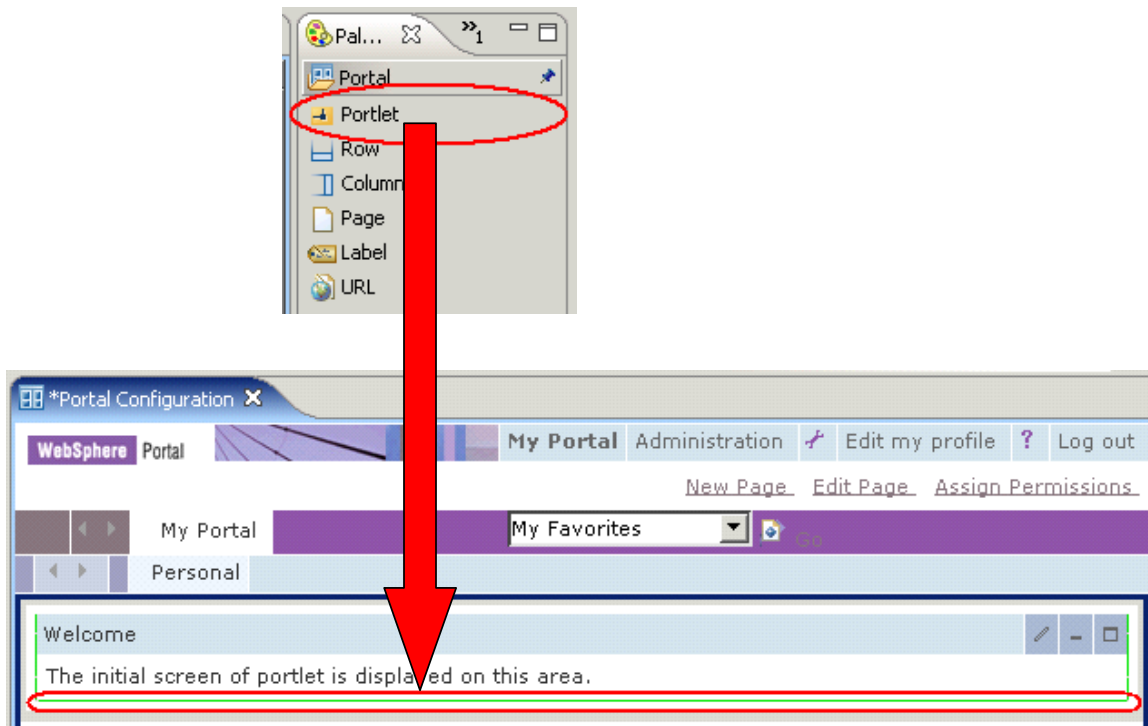
- ___ c. The Welcome portlet is added to the Personal page. The end result will look like the screen capture below.



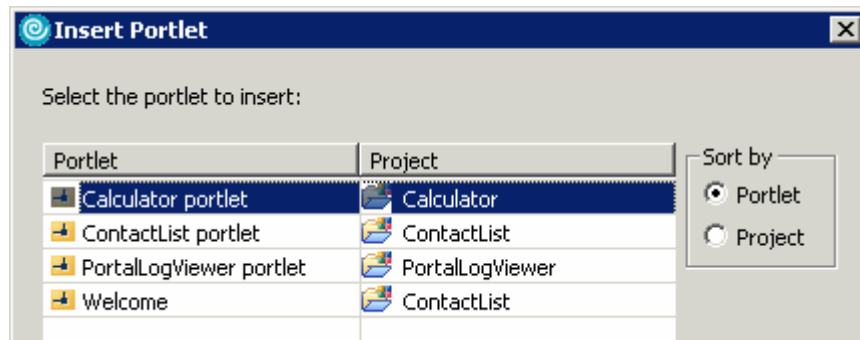
- ___ 7. Add the “Calculator” portlet to the portal.

- ___ a. In the Palette view, **drag-and-drop a Portlet below the Welcome portlet** in Portal Designer. See the screen capture below for an illustration.

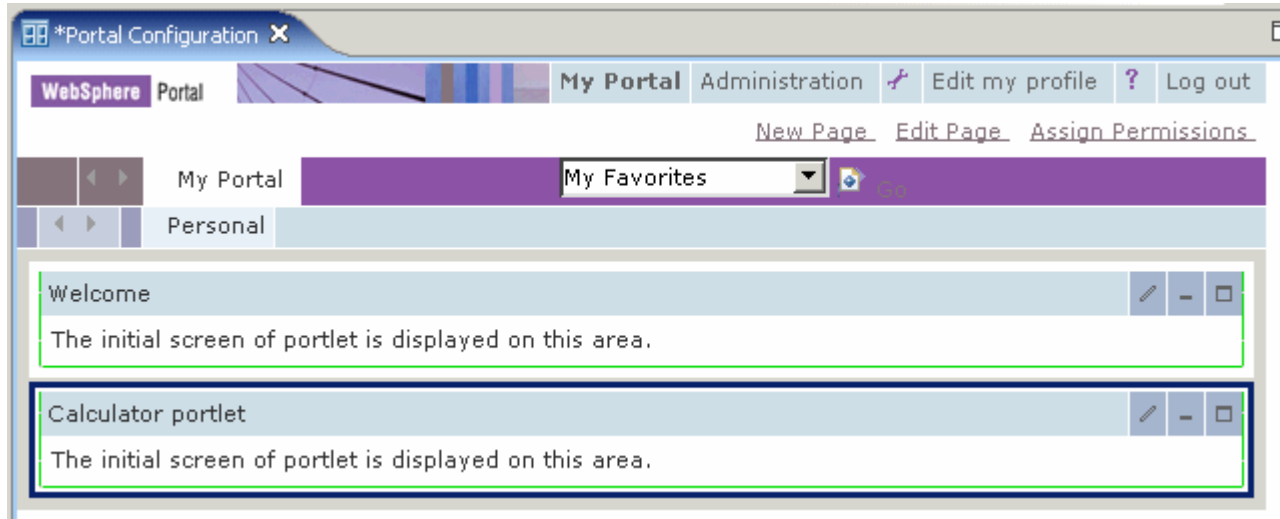
NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a “+” sign under the mouse cursor.



- ___ b. In the Insert Portlet window, select **Calculator portlet** (see the screen capture below) and click **OK**.

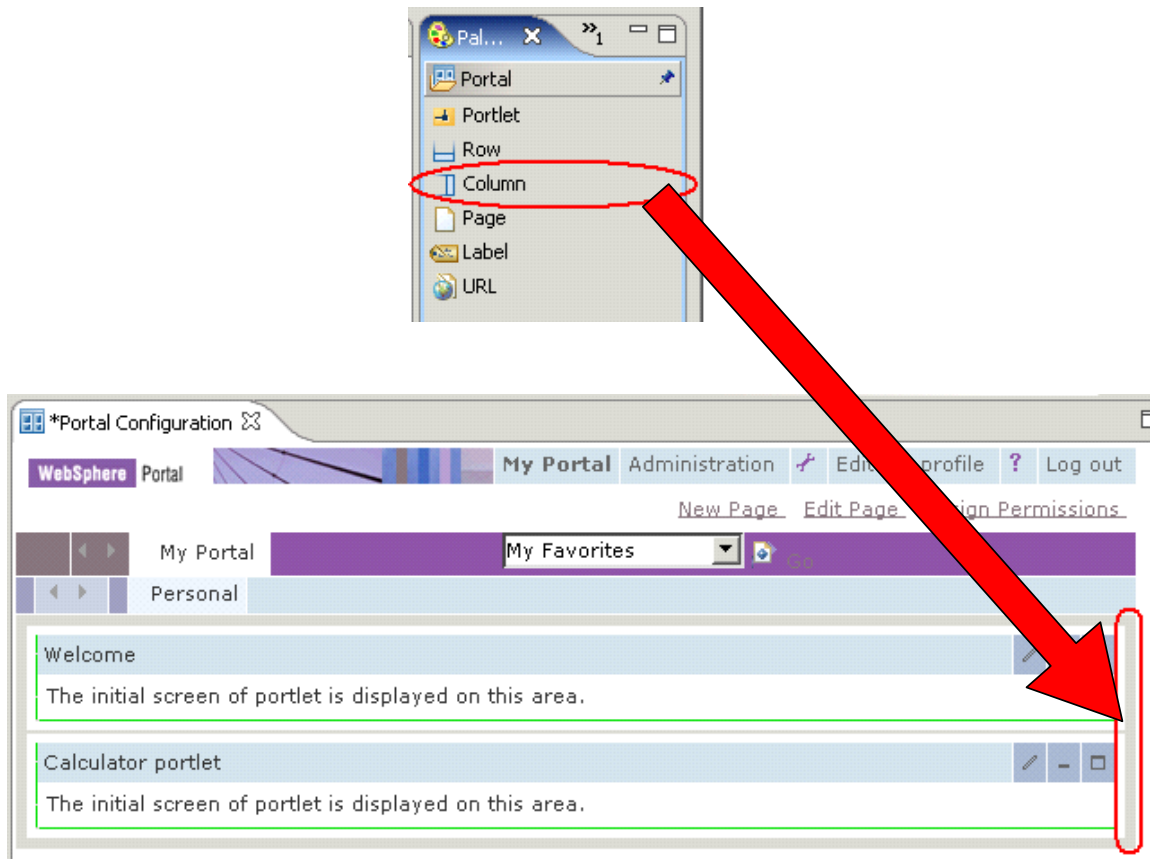


___ c. The Calculator portlet is added to the Personal page. The end result will look like the screen capture below.

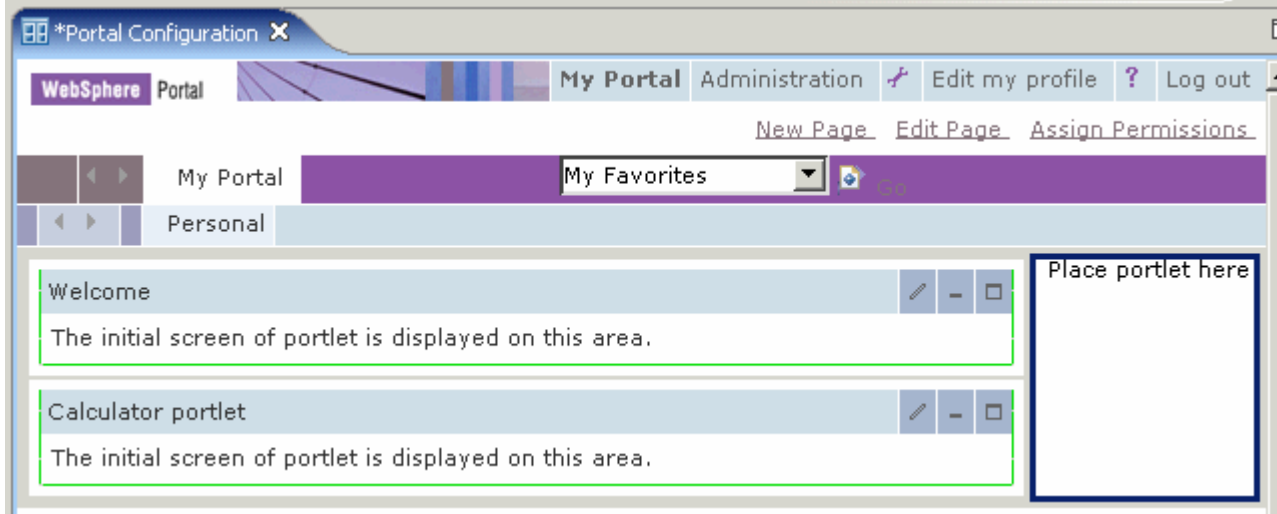


- ___ 8. Add a column to the portal to hold the ContactList portlet.
 - ___ a. In the Palette view, **drag-and-drop a Column to the right of the Welcome and Calculator portlets** in Portal Designer. See the screen capture below for an illustration.

NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a “+” sign under the mouse cursor.



___ b. A column is added to the Personal page. The end result will look like the screen capture below.



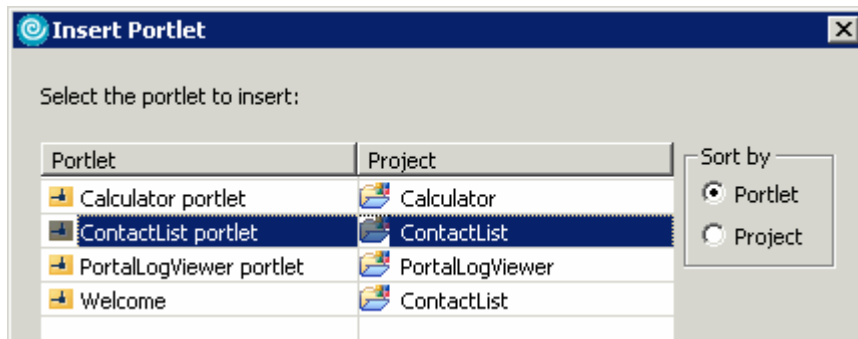
___ 9. Add the "ContactList" portlet to the portal.

___ a. In the Palette view, **drag-and-drop a Portlet onto the "Place portlet here" text** in the new column that was just created. See the screen capture below for an illustration.

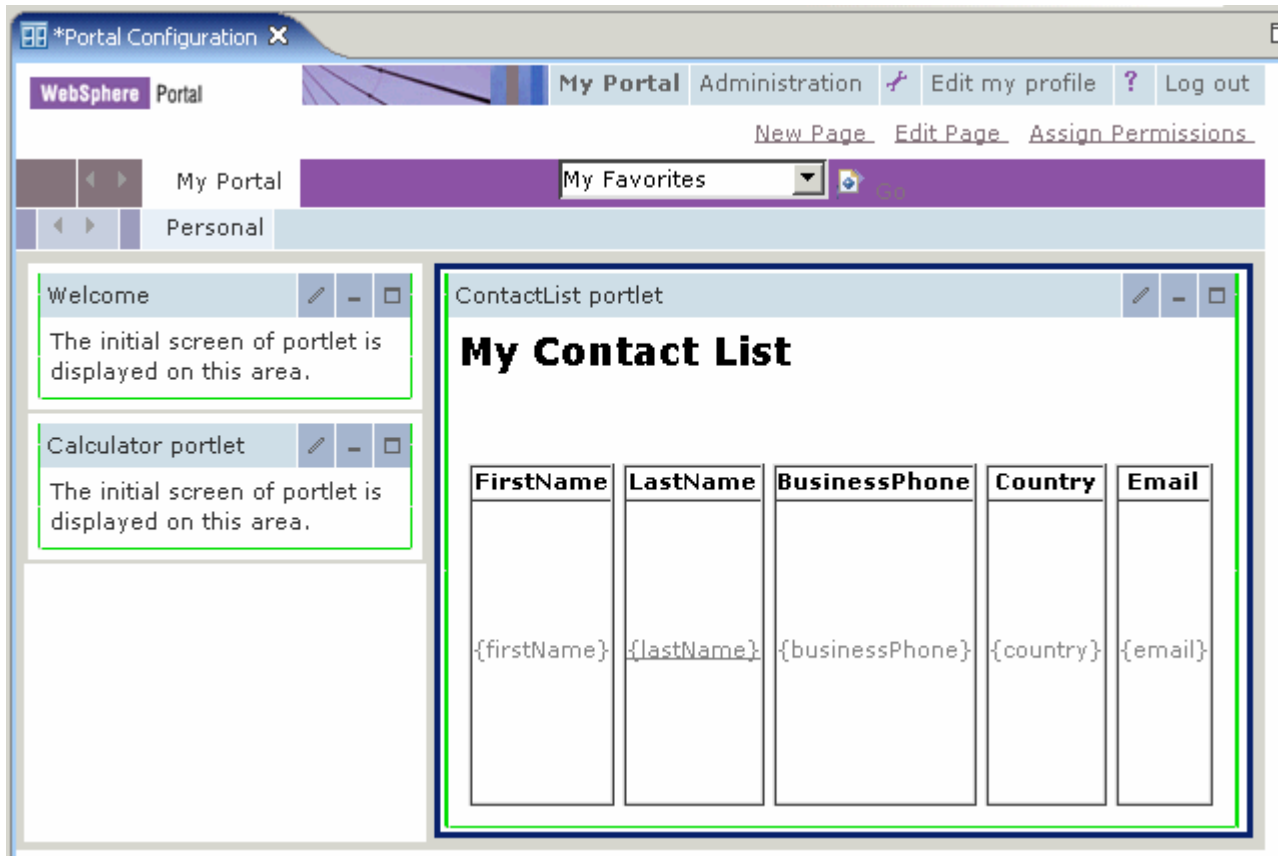
NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a "+" sign under the mouse cursor.



___ b. In the Insert Portlet window, select **ContactList portlet** (see the screen capture below) and click **OK**.



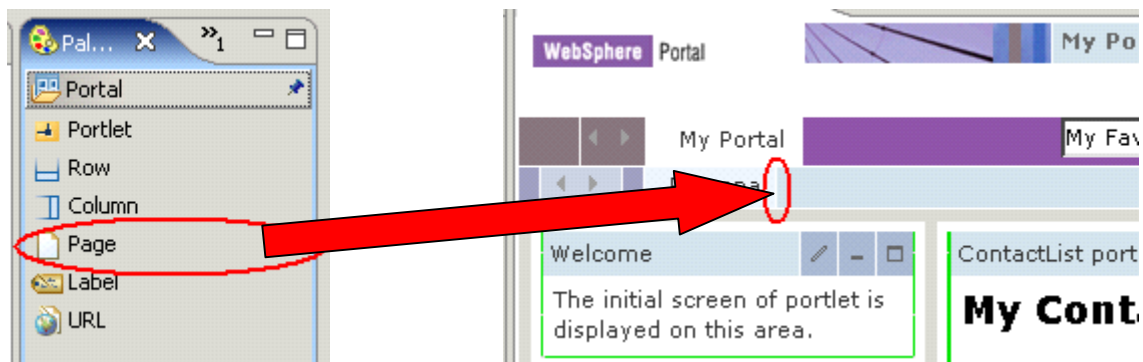
- c. The ContactList portlet is added to the Personal page. The end result will look like the screen capture below.



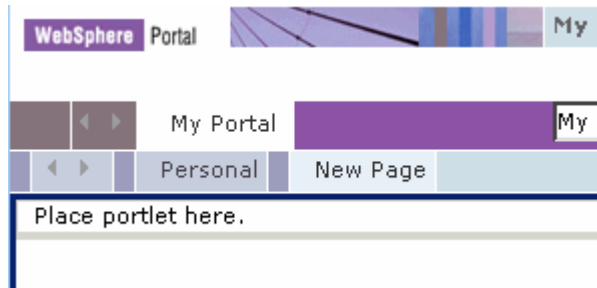
- 10. Add a new page under the My Portal label.

- a. In the Palette view, **drag-and-drop a Page to the right of the "Personal" page**. See the screen capture below for an illustration.

NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a "+" sign under the mouse cursor.



___ b. A page is added under the My Portal label. The end result will look like the screen capture below.



___ 11. Change the title of “New Page” to **Log Viewer**.

___ a. In Portal Designer, select “New Page” by left-clicking on it.

___ b. In the Properties view, select the **Title** tab (see the screen capture below).

___ c. Edit the page’s title. In the Title field change the text to be **Log Viewer** and press Enter. Note that the page’s title in Portal Designer has changed.

___ d. The end result will look like the screen capture below.



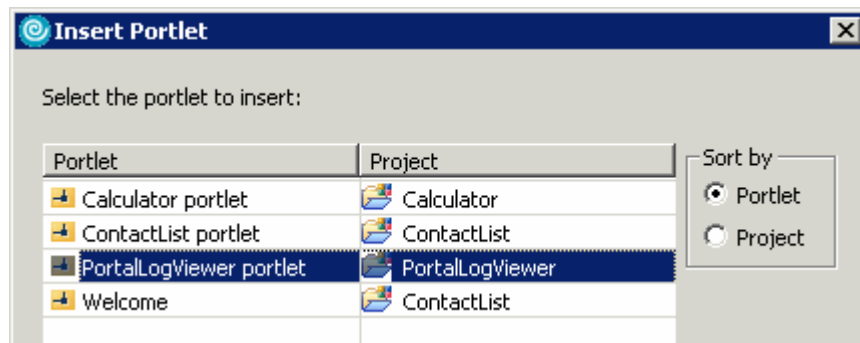
___ 12. Add the “PortalLogViewer” portlet to the portal.

___ a. In the Palette view, **drag-and-drop a Portlet onto the “Place portlet here” text** that is in the new page that was just created. See the screen capture below for an illustration.

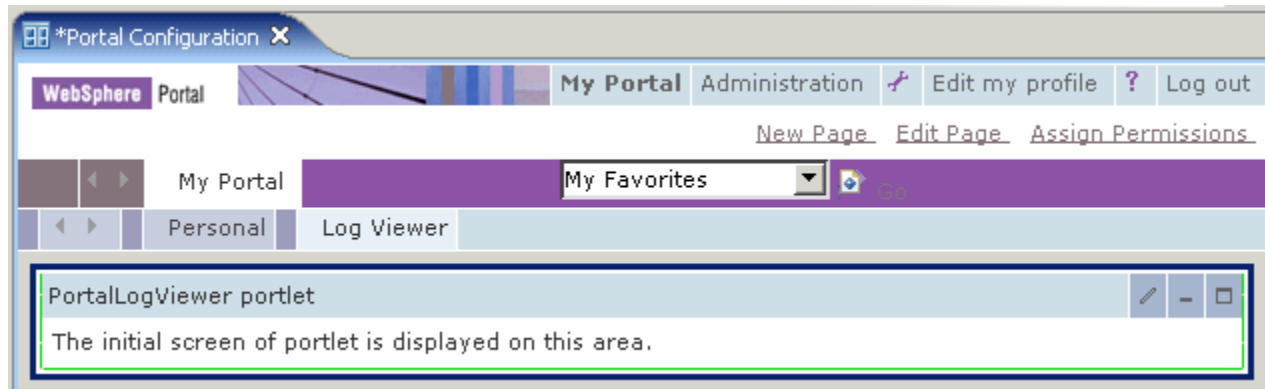
NOTE: When dragging-and-dropping, a valid spot to place the portlet in the page is highlighted by a “+” sign under the mouse cursor.



- ___ b. In the Insert Portlet window, select **PortalLogViewer portlet** (see the screen capture below) and click **OK**.

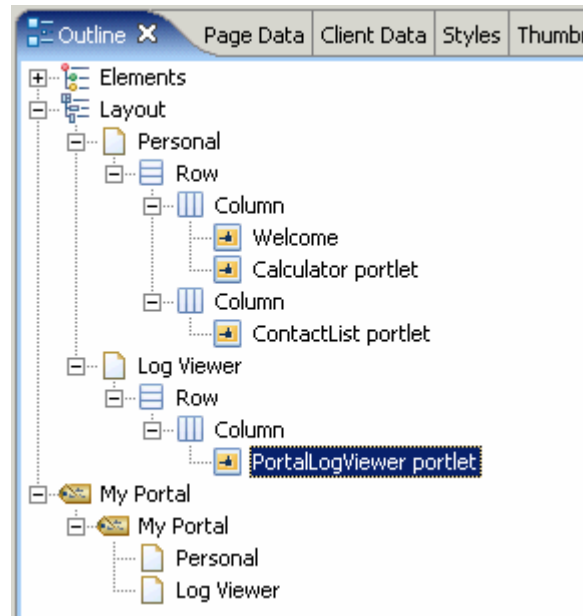


- ___ c. The PortalLogViewer portlet is added to the Log Viewer page. The end result will look like the screen capture below.



- ___ 13. Save the portal configuration. Ensure that the Portal Designer tab is selected and click **File > Save**.
- ___ 14. View the structure of the portal that you just created using the Outline view. The Outline view can be used to select and edit items in the portal configuration.

- ___ a. Switch to the Outline view by selecting **Window > Show View > Outline** (see the screen capture below).

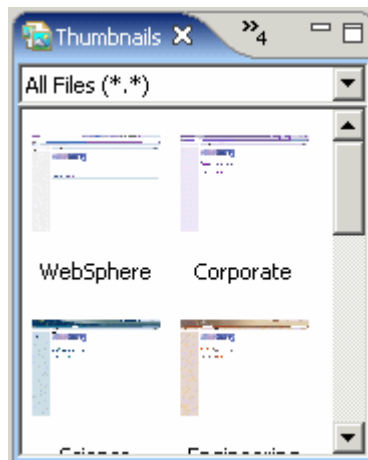


- ___ b. Use the Outline view to explore the items that you created above in Portal Designer.

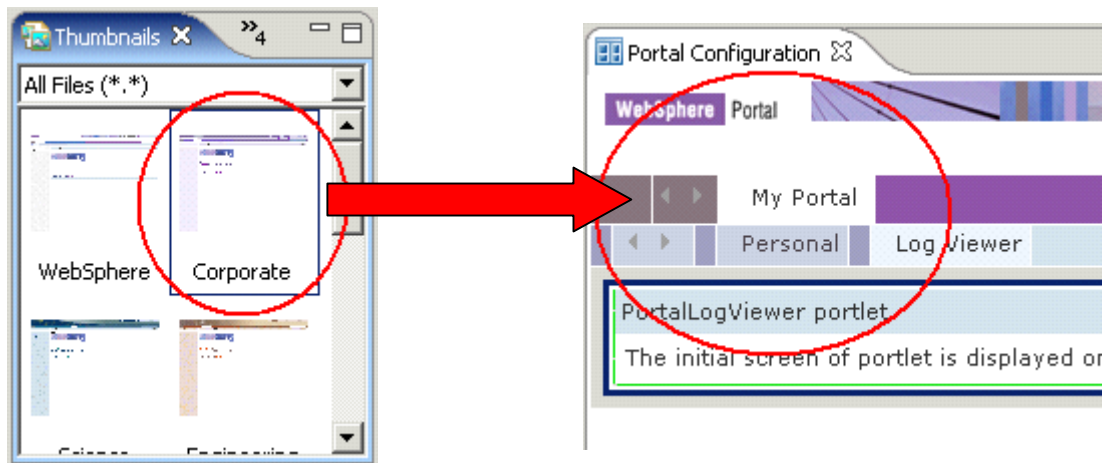
- ___ 15. Change the MyPortal theme from “WebSphere” to **Corporate**. The Thumbnails view can be used to easily change a portal’s theme.

- ___ a. Switch to the Thumbnails view by selecting **Window > Show View > Thumbnails**.

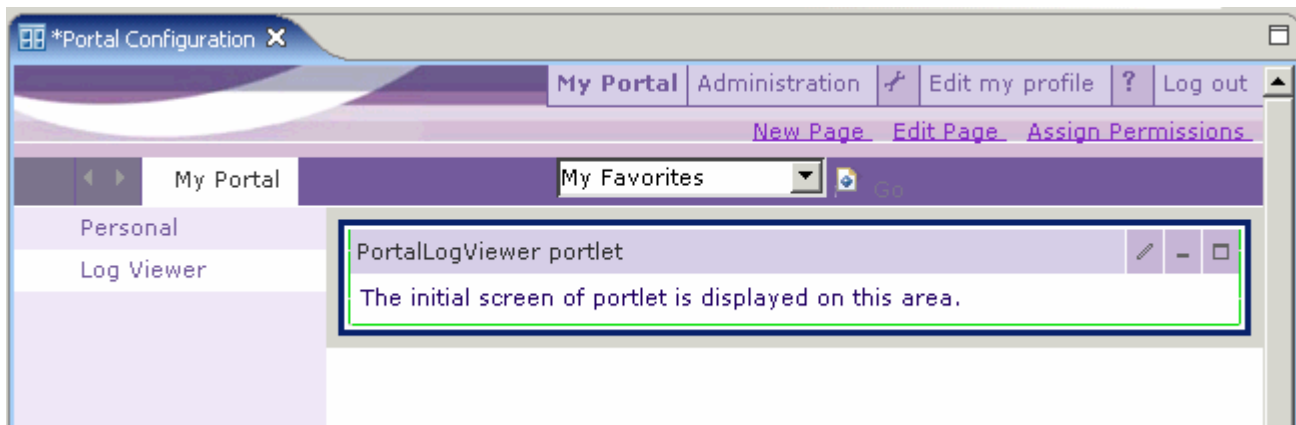
- ___ b. In the Project Explorer view, ensure that **Dynamic Web Projects > My Portal** is expanded and select **Themes**. The Themes that are available in the MyPortal portal project will be displayed in the Thumbnails view (see the screen capture below).



- ___ c. Apply the “Corporate” theme to the MyPortal portal. In the Thumbnails view, select the **Corporate** thumbnail. **Drag-and-drop the thumbnail onto the Portal Designer window** (see the screen capture below for an illustration).

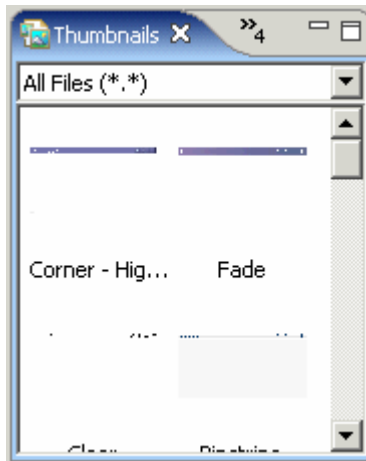


- ___ d. The “Corporate” theme will be applied to the MyPortal portal. The end result will look like the screen capture below.

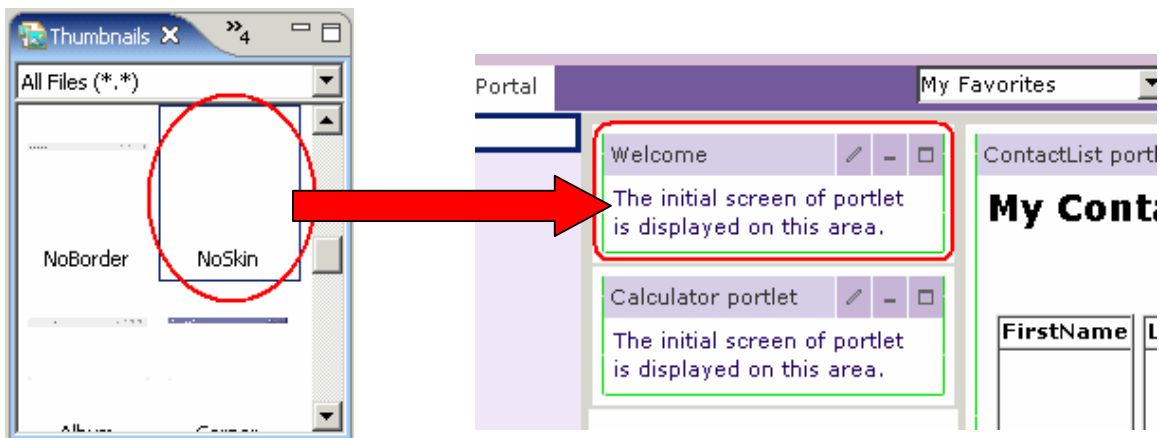


- ___ 16. Change the Welcome portlet’s skin from “Outline” to **NoSkin**. The Thumbnails view can additionally be used to easily change a portlet’s skin.
 - ___ a. In the Portal Designer, select the Personal page.
 - ___ b. Switch to the Thumbnails view by selecting **Window > Show View > Thumbnails**.

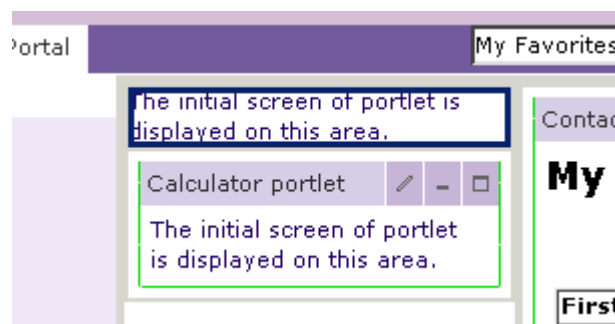
- ___ c. In the Project Explorer view, ensure that **Dynamic Web Projects > My Portal** is expanded and select **Skins**. The Skins that are available in the MyPortal portal project will be displayed in the Thumbnails view (see the screen capture below).



- ___ d. Apply the “NoSkin” theme to the Welcome portlet. In the Thumbnails view, select the **No Skin** thumbnail (you will have to scroll the view down). **Drag-and-drop the thumbnail onto the Welcome portlet** in Portal Designer (see the screen capture below for an illustration).



- ___ e. The “NoSkin” skin will be applied to the Welcome portlet. The end result will look like the screen capture below.



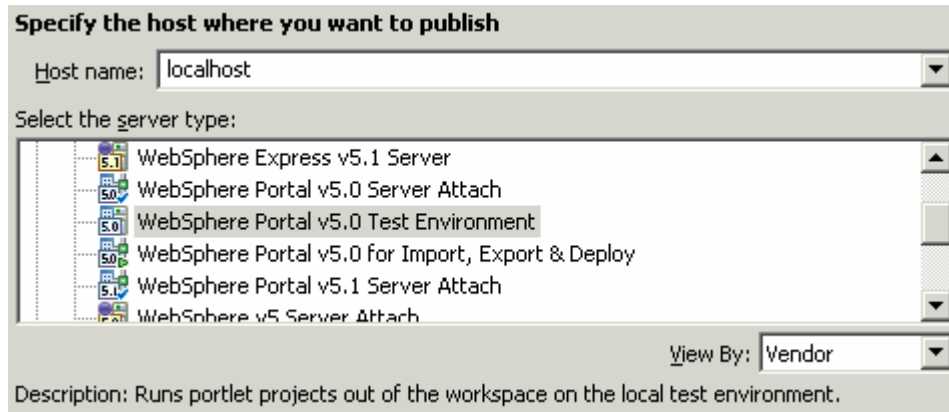
- ___ f. Optionally use the steps above to apply different skins to the different portlets within the MyPortal portal.

____ 17. Save the portal configuration. Click **File > Save**.

Part 4: Test the Portal on the Portal Test Environment

In this part, you will use the Portal Test Environment to run and test the portal that was created above.

- ___ 18. Run the portal on a new server configuration.
 - ___ a. In the Project Explorer view, expand **Dynamic Web Projects**. Right-click on **MyPortal** and select **Run > Run on Server....**
 - ___ b. In the Server Selection window, select **Manually define a server**. In the Select the server type box, select **WebSphere Portal v5.0 Test Environment**. Click **Finish**.

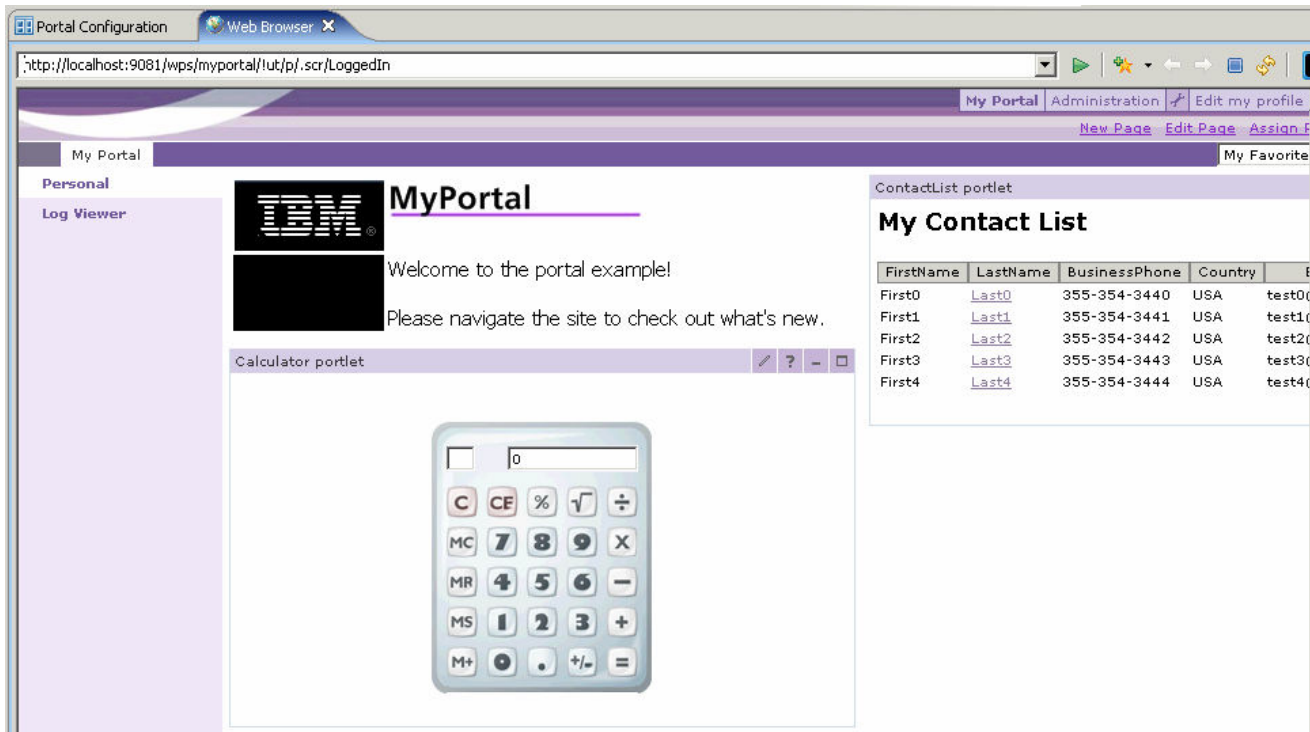


- ___ c. A new server and server configuration will be automatically generated, and the Portal Project will be added to this server. The server will then start, and a web browser will open to display your portal.

NOTE: Depending on the size of the system on which you are working, the starting of the Portal server may take up to ~5 minutes.

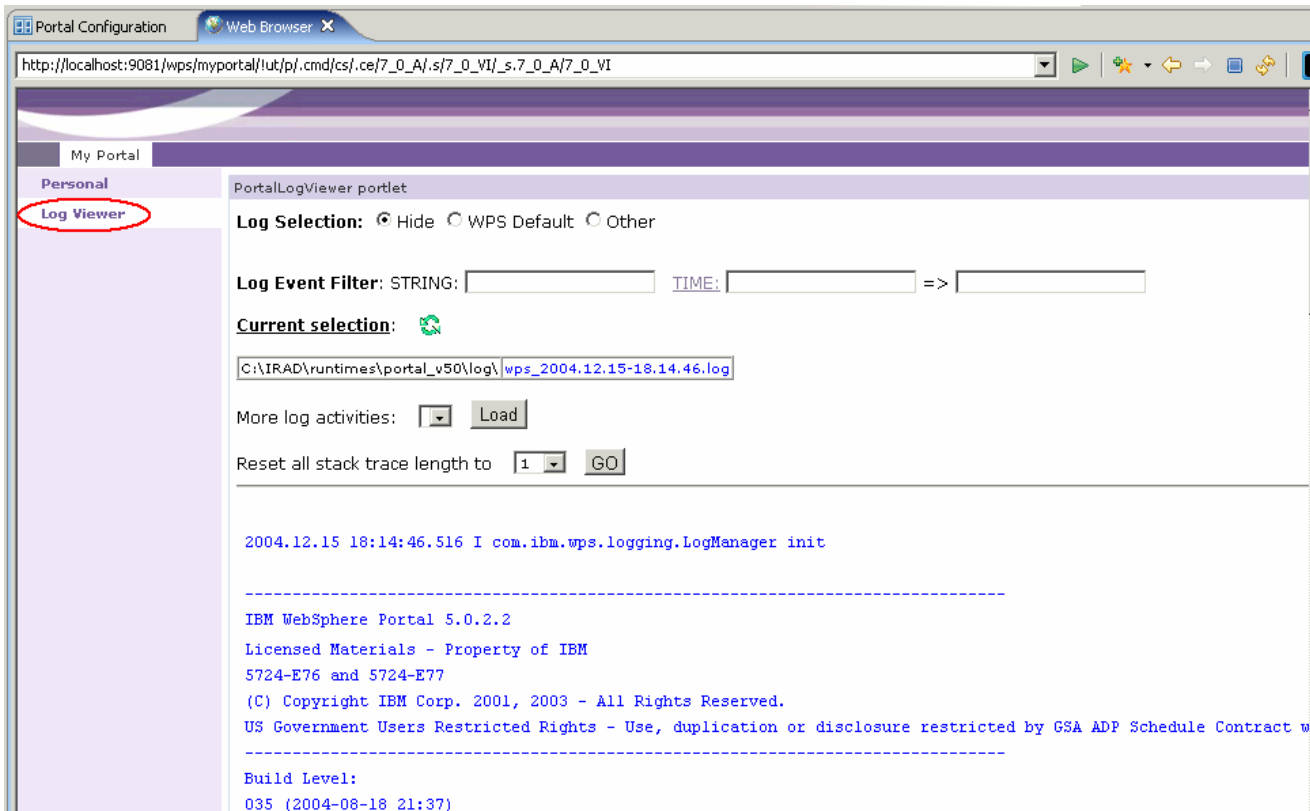
- ___ 19. Test the MyPortal portal that was created above.

- ___ a. When the MyPortal portal comes up, the Personal page is displayed. The Personal page contains the Welcome, Calculator and ContactList portlet.



- ___ b. Explore the different portlets on the Personal page.

- ___ c. Click the Log Viewer page (see the screen capture below). The Log Viewer page contains the PortalLogViewer portlet.



- ___ d. Explore the portlet on the Log Viewer page.
- ___ e. Continue to explore the application until you are satisfied with what you have seen.

___ 20. Stop the test server.

- ___ a. Switch to the Servers view by selecting **Window > Show View > Servers**.
- ___ b. Right-click on **WebSphere Portal v5.0 Test Environment @ localhost** and select **Stop**.
- ___ c. Watch the Console view and wait for the server to come to a complete stop.

___ 21. Exit Application Developer. Select **File > Exit**.

What you did in this exercise

In this exercise, you used the portal development tools within Rational Application Developer v6.0 to build a portal.

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