WebSphere® Commerce Feature Pack 2 – Lab exercise

Deploying and configuring sample portlets

Deploying and configuring Commerce sample portlets

What this exercise is about

The objective of this lab is to provide detailed instructions for setting up Rational® Application Developer V7 for portal development and testing environment; and for deploying, configuring and testing the MVCPortlet sample.

Lab requirements

- Rational Application Developer V7.0 with the WebSphere Portal V6 test environment installed

- WebSphere Commerce Developer V6.0 with WebSphere Commerce Feature Pack 2 installed

What you should be able to do

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

- Setup Rational Application Developer V7 for portal development and testing.

- Install sample application MVCPortlet and configure the sample portlets.

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 need to run the appropriate commands, and use appropriate files for your operating system. The directory locations are specified in the lab instructions using symbolic references. The following table is a list of symbolic references that you must supply a value that is specific to your particular installation.

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Reference variable	Description
<RAD7_WORKSPACE>	Workspace directory for Rational Application Developer V7
<RAD7_WAS_ADMIN>	Administrator ID for WebSphere Application Server test environment
<RAD7_WAS_ADMIN_PASS>	Administrator password for WebSphere Application Server V7 test environment
<RAD7_PORTAL_ADMIN>	Administrator ID for WebSphere Portal Server test environment
<RAD7_PORTAL_ADMIN_PASS>	Administrator password for WebSphere Portal Server in RAD 7 testing environment
<RAD7_PORTAL_HOME>	WebSphere Portal Server installation location in RAD 7 testing environment
<WCDE_INSTALL_DIR>	WebSphere Commerce Developer installation directory
<WCDE_ADMIN>	WebSphere Commerce site administrator ID for Commerce developer
<WCDE_ADMIN_PASS>	WebSphere Commerce site administrator password for Commerce developer
<WCDE_CONSUMER_DIRECT_PORT>	Port number for the ConsumerDirect store running in the WebSphere Commerce Developer
<WCDE_HOST>	Hostname for WebSphere Commerce Developer

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Part 1: Enable Rational Application Developer V7 WebSphere Portal tools

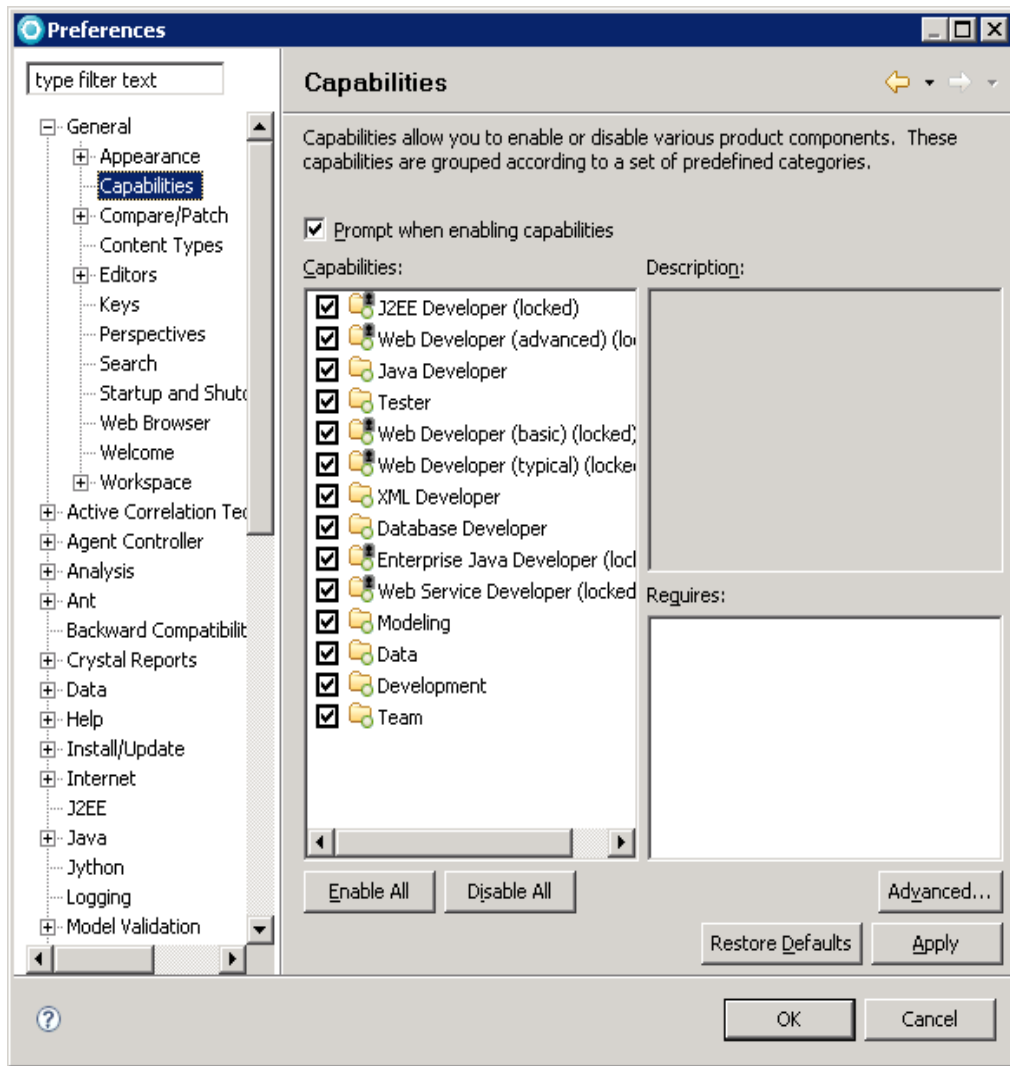____ 1.   Launch Rational Application Developer V7.

____ 2.   Select <RAD7_WORKSPACE> as the workspace directory. For example C:\WCPortlet_Test.
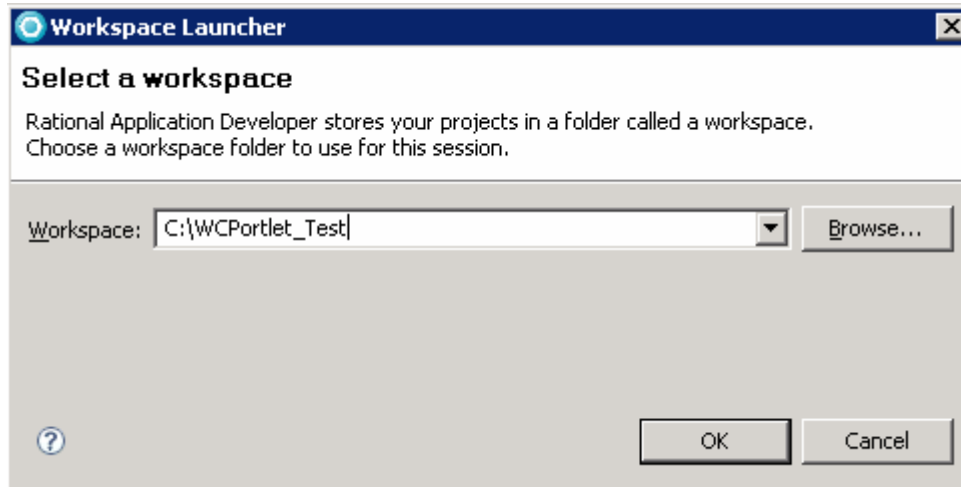
____ 3.   Click **OK.**
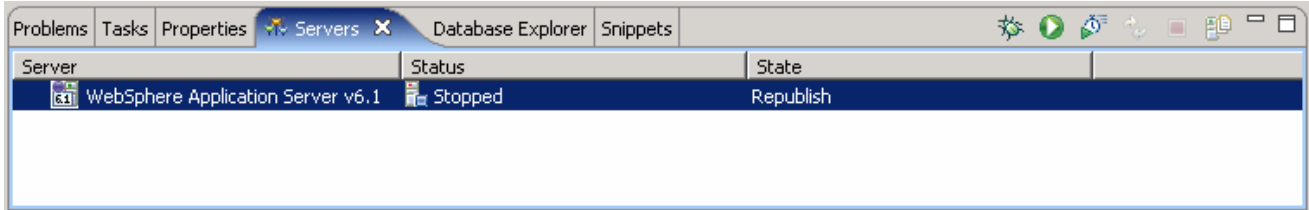
____ 4.   Close the Welcome Screen if it is open.
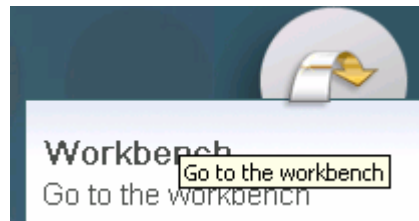
____ 5.   From the Rational Application Developer 7.0 workbench menu bar, select **Windows →
          Preferences.**

____ 6.   From the **Preferences** dialog, expand **General** to select **Capabilities** in the left frame (General →
          Preferences).

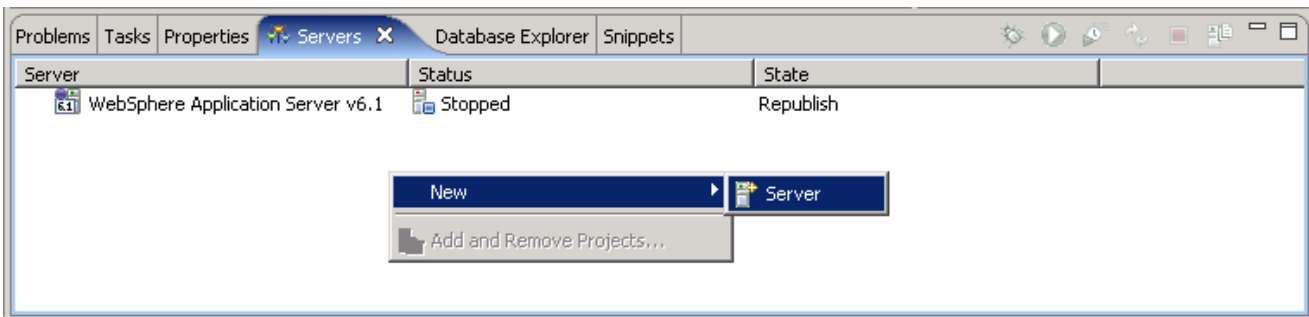*Deploying and configuring Commerce sample portlets*

____ 7.   Select **Enable All** and click **OK** to close **Capabilities** window.

____ 8.   Restart the Rational Application Developer.

Part 2: Configure WebSphere Portal V6.0 server for WebSphere Commerce portlets testing:

____ 1.   In the bottom frame, select the **Servers** tab.

Problems	Tasks	Properties	Servers ✕	Database Explorer	Snippets

Server	Status	State	
WebSphere Application Server v6.1	Stopped	Republish	

____ 9.   While you are in the **Servers** view, right click over the white space to create a new server (**New → Server**).

Problems	Tasks	Properties	Servers ✕	Database Explorer	Snippets

Server	Status	State	
WebSphere Application Server v6.1	Stopped	Republish	

| New ▶	Server
Add and Remove Projects...	

____ 10.   From the **New Server** dialog:

__ a. Select **WebSphere Portal Server 6.0.**

__ b. Leave the other field values as the default. Click **Next**.

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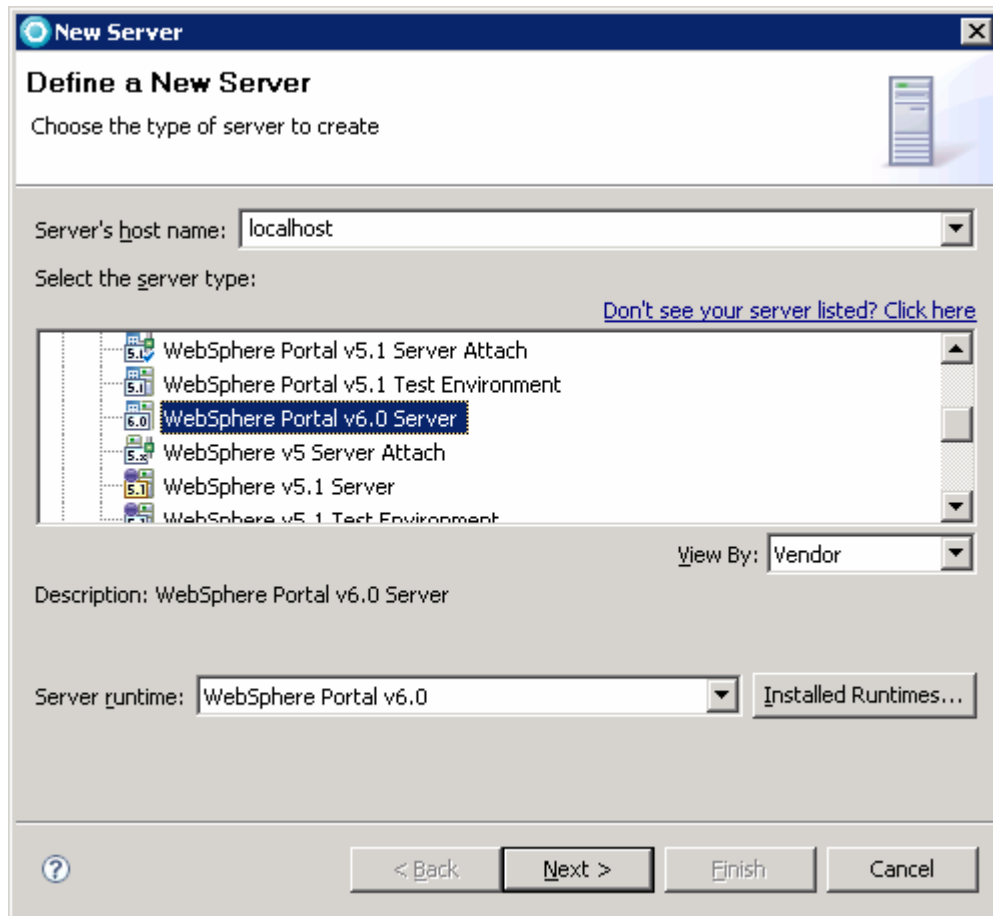
____ 11. In the **WebSphere Settings** panel:

__ a. Ensure the Server connection type is **SOAP** and ensure the correct **SOAP** port is used.

__ b. Enter the user ID and password for **WebSphere Security Authentication:**

- **User ID**   **:** <RAD7_WAS_ADMIN>

- **Password :** <RAD7_WAS_ADMIN_PASS>

Deploying and configuring Commerce sample portlets
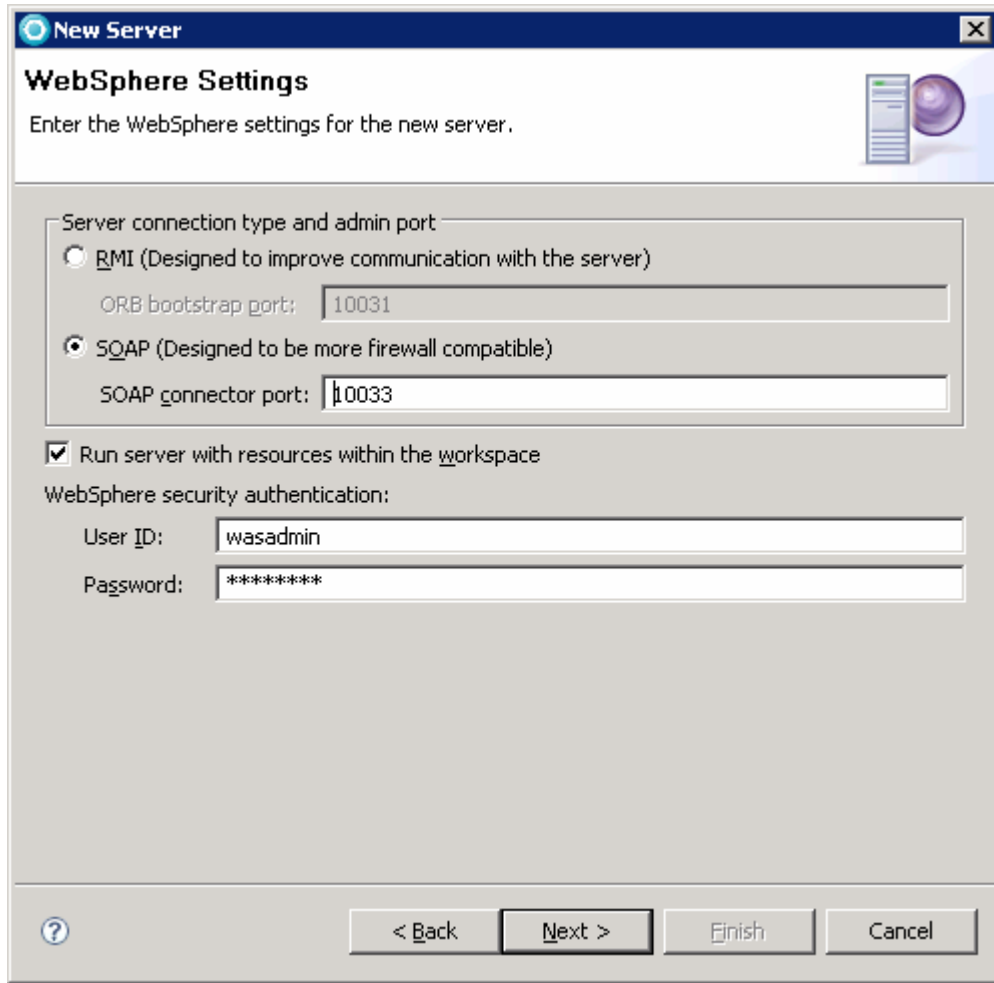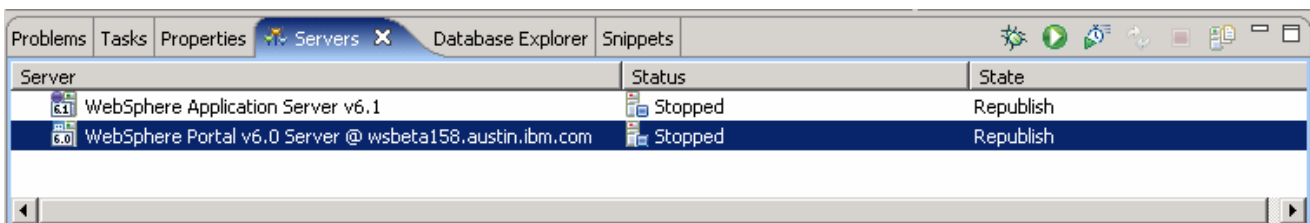
____ 12.   Click **Next.**

____ 13.   In the WebSphere Portal Settings panel, provide following values in the fields:

    __ a. **Context Root :** /wps

    __ b. **Default Home :** /portal

    __ c. **Personalized Home :** /myportal

    __ d. **Install Location :** <RAD7_PORTAL_HOME>

    __ e. **WebSphere Portal Administrator**

- **User ID**   **:** <RAD7_PORTAL_ADMIN>

- **Password :** <RAD7_PORTAL_ADMIN_PASS>

- **Enable Automatic Login :** Selected
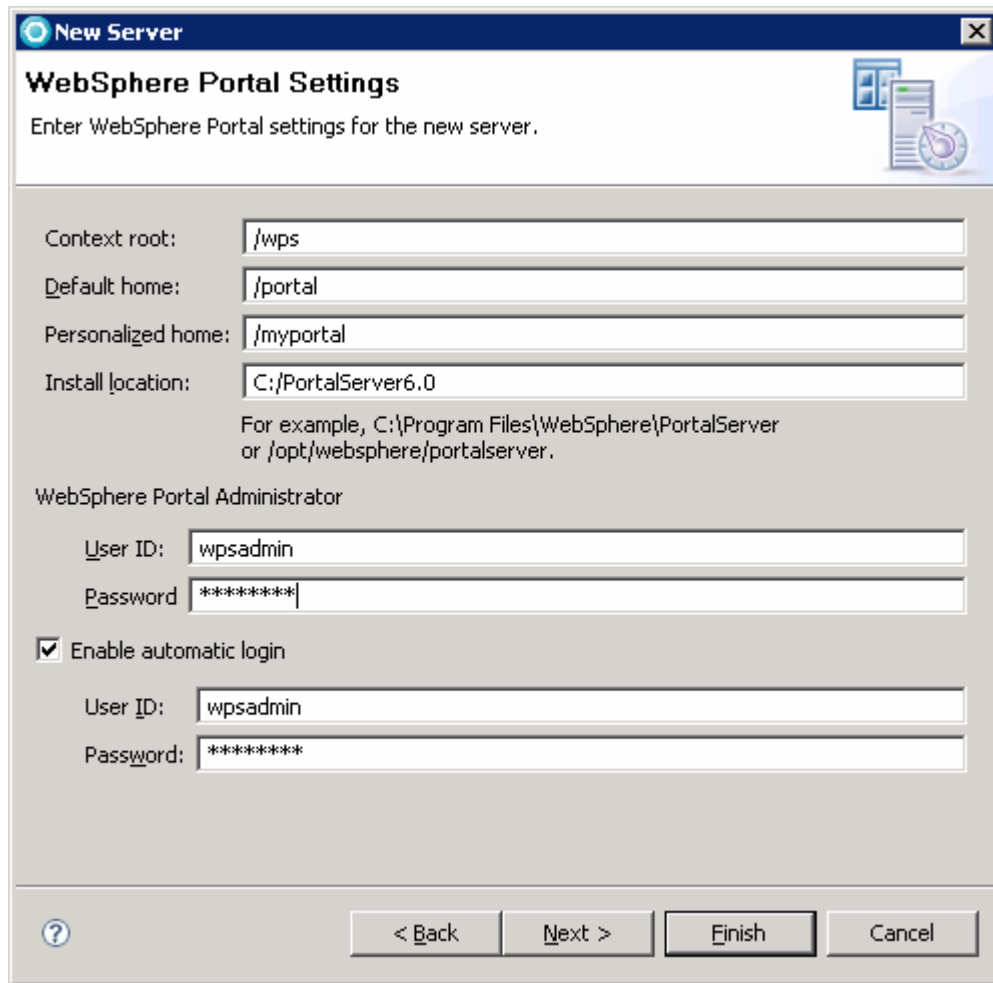
____ 14. Click **Finish**

____ 15. Ensure that WebSphere Portal Server is added to the Servers list

____ 16. Double click the portal testing server that you just created in the **Servers** view.

    __ a. Verify that **Optimize Server for testing and developing** is selected under the Server session tab.

    __ b. Verify **SOAP** in the **Server connection type and admin port** field is selected.

    __ c. Expand **Automatic Publishing** and select **Use default publishing settings**.

    __ d. Save the configuration and close it.

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▼ **General**

Specify the host name and other common settings.

Server name:	WebSphere Portal v6.0 Server @ localhost
Host name:	localhost
Runtime:	WebSphere Portal v6.0 ▼ Edit
Configuration path:	/Servers/WebSphere Portal v6.0 Server @ localhost-config Browse

▼ **Server**

Enter settings for the server.

WebSphere profile name:	wp_profile ▼
Update server status interval (in milliseconds):	5000

Server connection type and admin port

○ RMI (Designed to improve communication with the server)
    ORB bootstrap port: 10031
◉ SOAP (Designed to be more firewall compatible)
    SOAP connector port: 10033

☑ Enable hot method replace in debug mode
☑ Enable universal test client
☑ Optimize server for testing and developing
☐ Terminate server on workbench shutdown

▼ **Automatic Publishing**

Override when the server is automat

◉ Use default publishing settings
○ Never publish automatically
○ Override default settings
    Publishing interval (in seconds):

▼ **Publishing**

Modify the publishing settings.

◉ Run server with resources withi
○ Run server with resources on S

☐ Minimize application files copied

▶ **Security**

▶ **Network Deployment**

____ 17. Right click the portal testing server and select **Start** to start it. Ensure the server starts without errors.

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Part 3: Configure TCP/IP Monitor

_____ 1.   From the main menu, select **Windows** > **Preferences**.

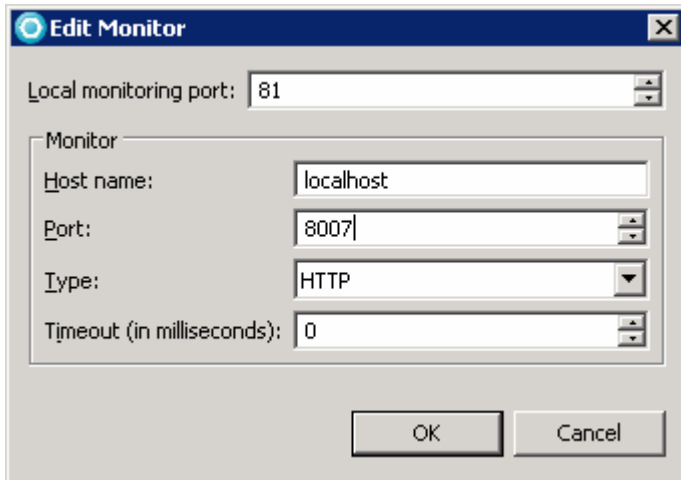_____ 18.   In the **Preferences** dialog, expand **Run/Debug** and select **TCP/IP Monitor**.
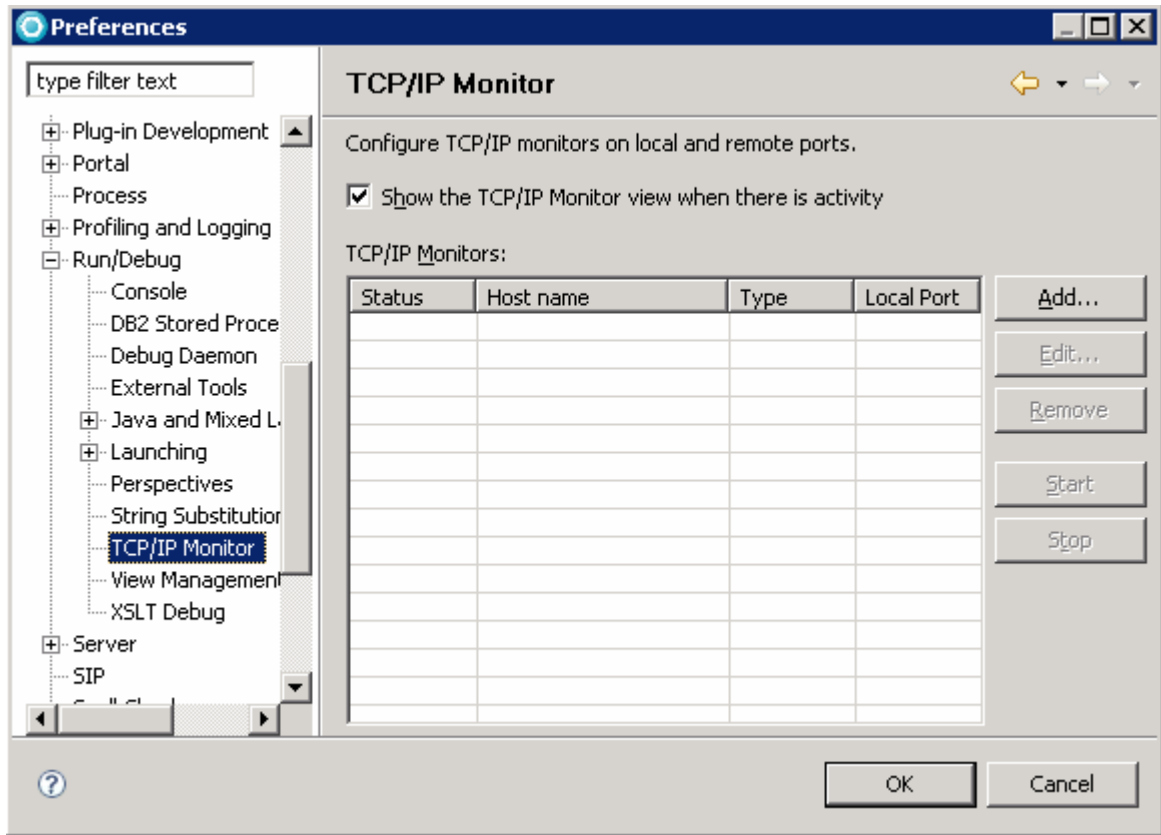
_____ 19.   Click the **Add** button in the right frame.

_____ 20.   Enter the following information in the **New Monitor** dialog:

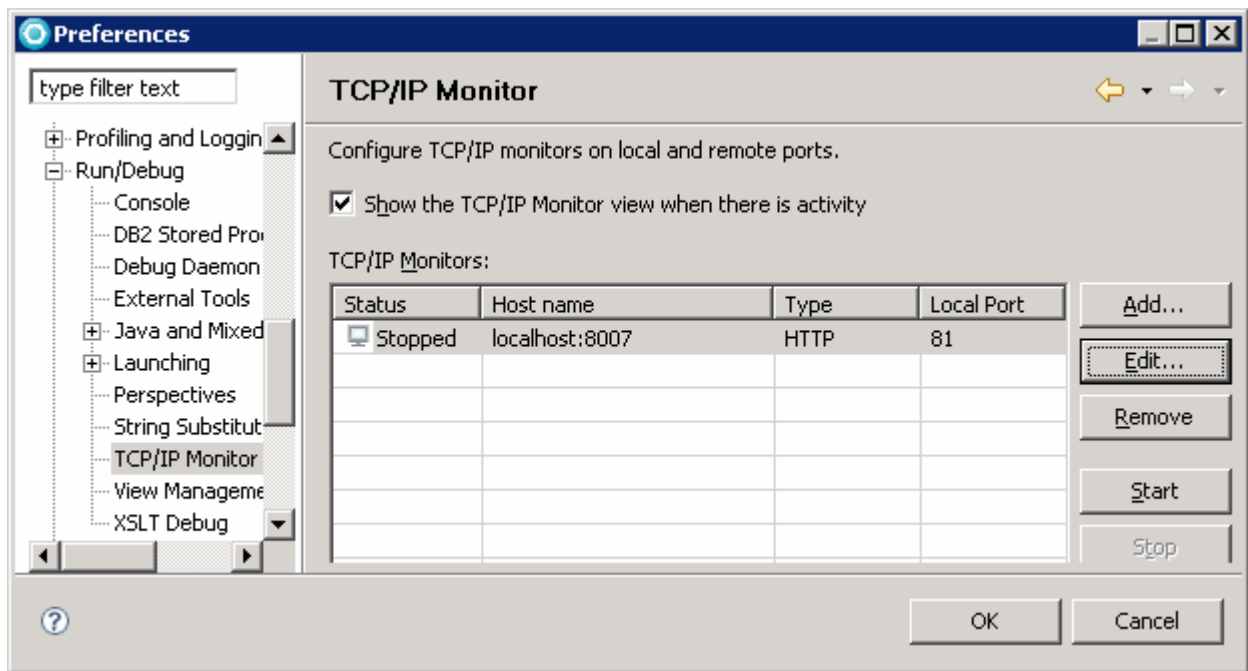|	
Local Monitoring port:	81
Hostname :	<WCDE_HOST>
Port:	8007
Type :	HTTP

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____ 21. Click **OK.**

____ 22. Select the TCP/IP Monitor you just added and click **Start**.

____ 23. Click **OK** to close the **Preferences** window.

Part 4: Import and deploy the MVCPortlet.war file

____ 1.   From the menu bar, click **File** > **Import**, select **Web** > **WAR file**, and click **Next.**
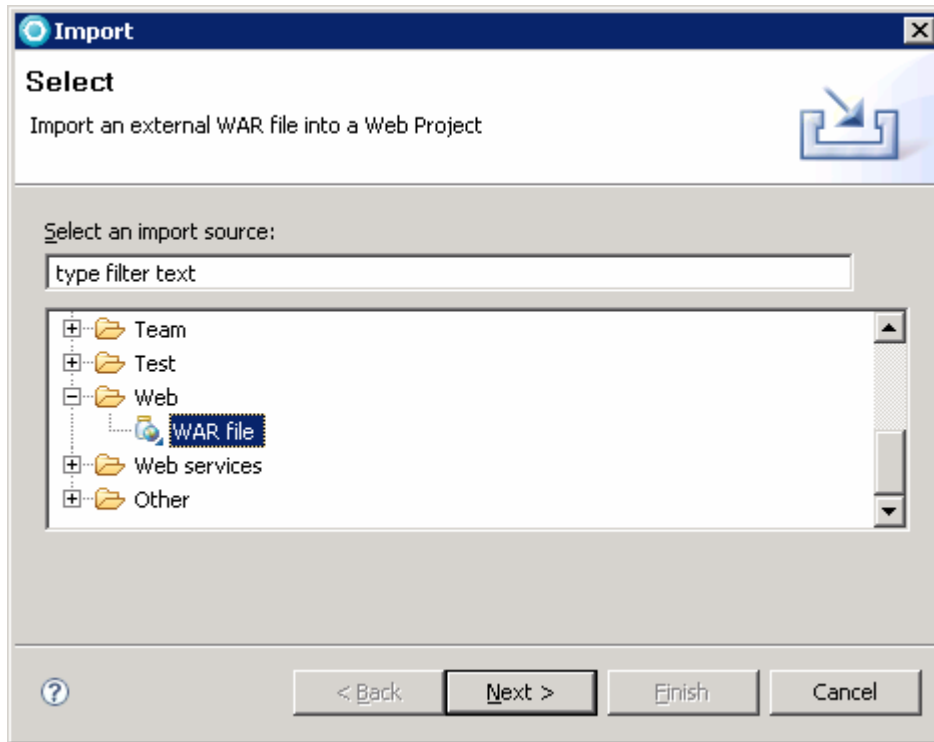
____ 2.   From the **WAR Import** dialog, ensure the following information is provided:

__ a. **War File** : use the **Browse** button to select file **MVCPortlet.war.**

Note: After you install WebSphere Commerce V6 Feature Pack 2, the MVCPortlet.war file is in the directory <WCDE_INSTALL_DIR>\components\wcportal\MVCPortlet. You need to copy this file to the Rational Application Developer V7 machine if WebSphere Commerce Developer and Rational Application Developer V7 are on two different machines.


__ b. **Web Project**: Ensure the Web Project name is populated as **MVCPortlet.**

__ c. **Target Run Time**: Select "**WebSphere Portal v6.0**" from the drop-down list.

__ d. In **EAR Membership:**

- Ensure the check box next to "**Add Project to an EAR**" is selected.

- Ensure the **EAR Project Nam**e is populated as **MVCPortletEAR.**

*Deploying and configuring Commerce sample portlets*
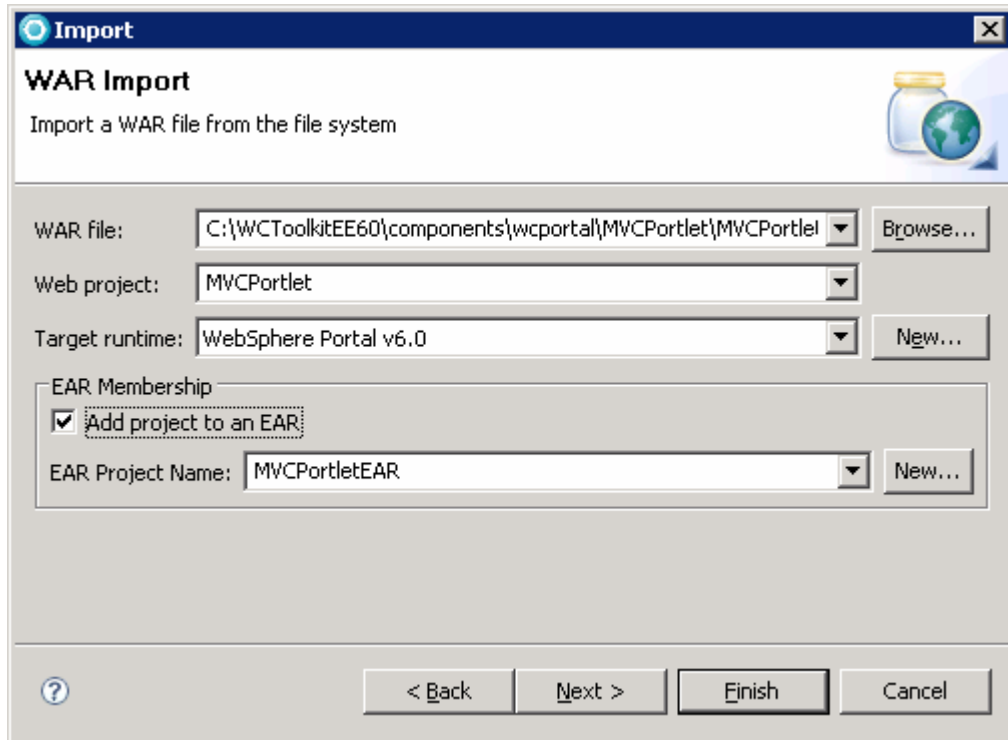
____ 24. Click **Finish.**

____ 25. Change the value of parameter **.ContextDefault-storeId** for each portlet to 10101. This is the ID for the ConsumerDirect store in WebSphere Commerce Developer Toolkit.

__ a. In the Project Explorer view, expand project **MVCPortlet** > **WebContent** > **WEB-INF**, Double-click the portlet deployment descriptor **portlet.xml** to open it.

Deploying and configuring Commerce sample portlets
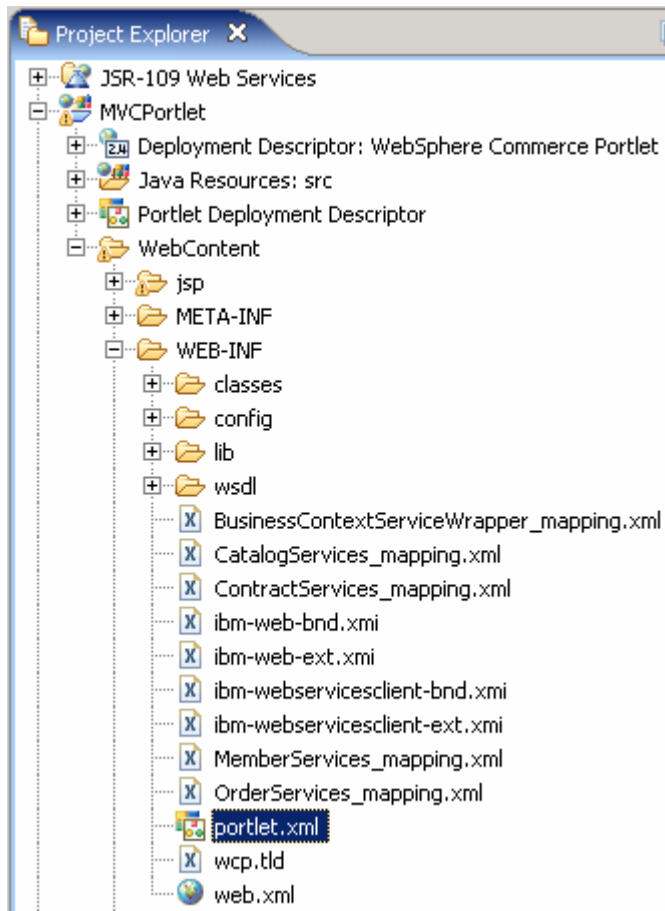
__ b. In the **Portlet Deployment Descriptor** window, click on the tab **Portlets.**

__ c. Under the **Portlets** area, select the portlet **WebSphere Commerce Search Portlet**.

__ d. Scroll down until you see the **Persistent Preference Store** area.

Deploying and configuring Commerce sample portlets
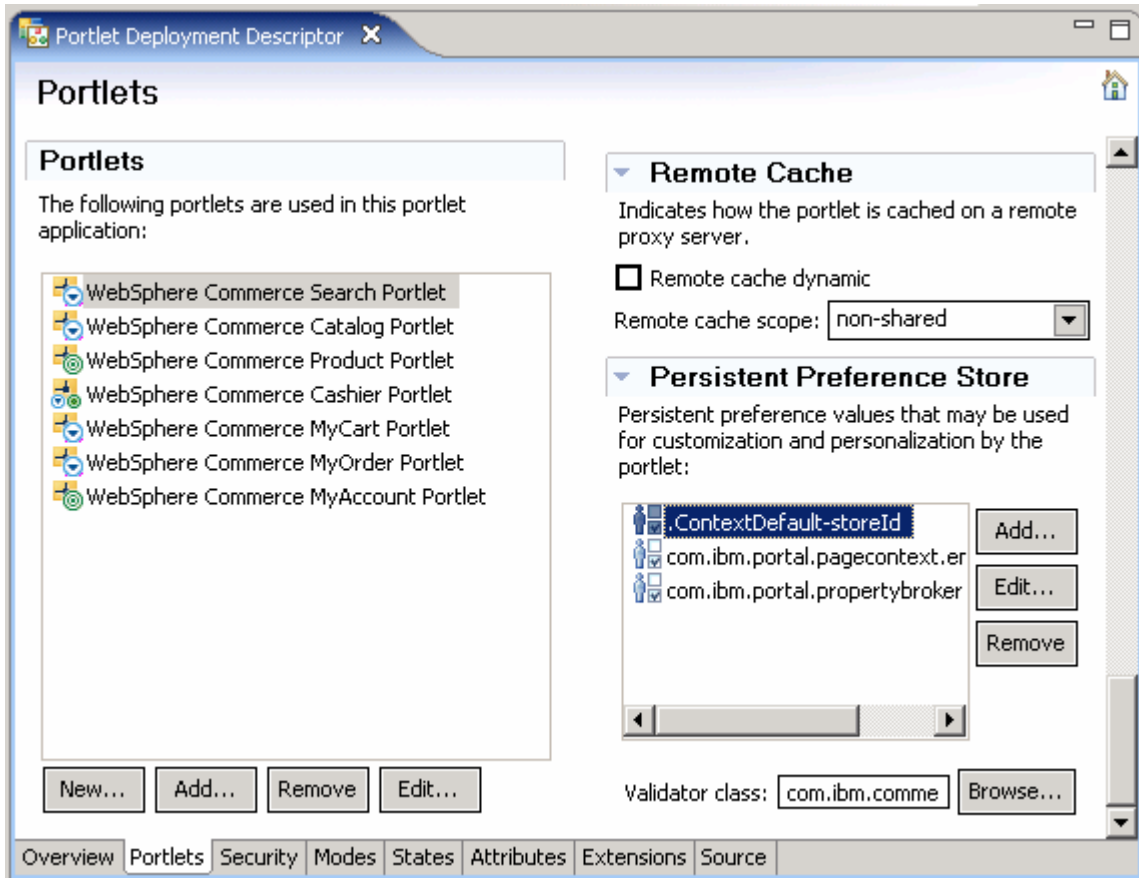
__ e. In the **Persistent Preference Store** area, select **.ContextDefault-storeId**, and then click on the **Edit** button.

__ f. Click on 10001, and change it to 10101. Click **OK**.
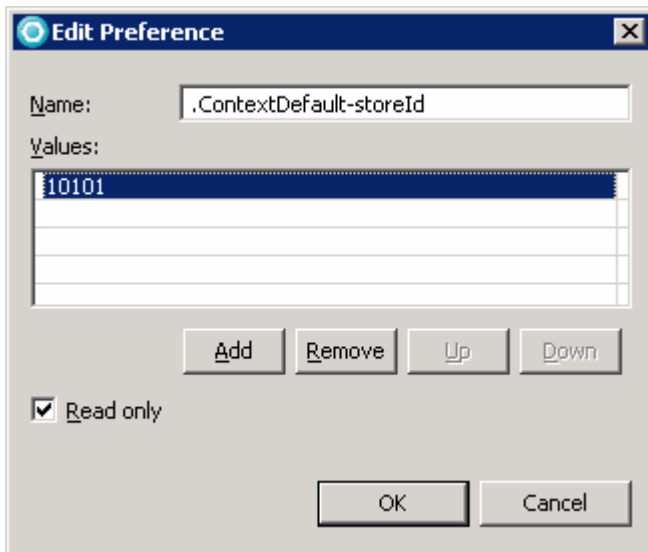
__ g. Repeat steps **c** to **f** for the other 6 portlets.

__ h. Save the changes (**Ctrl+s**) and close the **Portal Deployment Descriptor** editor.

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_____ 26. Change the ConsumerDirect storeId in file **store-directory.properties**.

    __ i. In the Project Explorer view, expand the project **MVCPortlet** > **WebContent** > **WEB-INF** > **config**. Double click the file **store-directory.properties**.
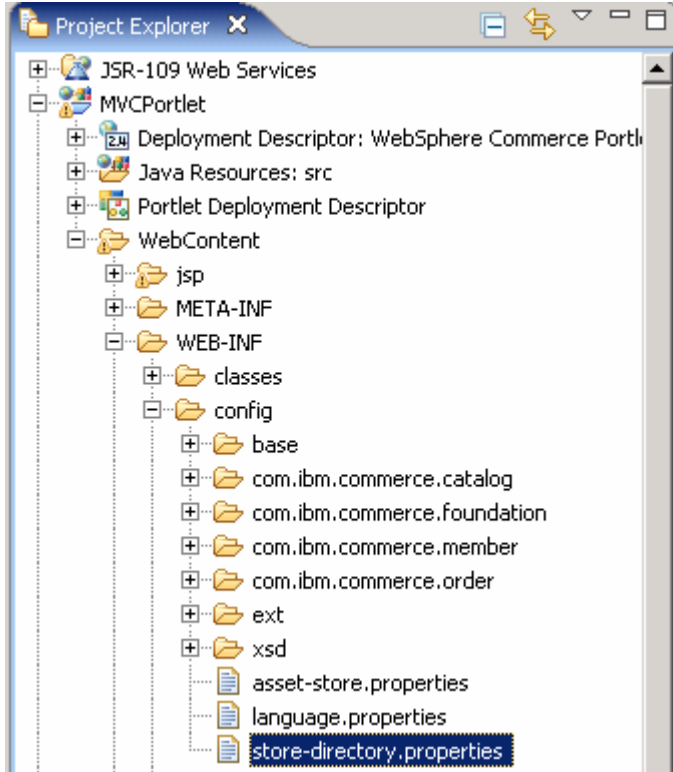
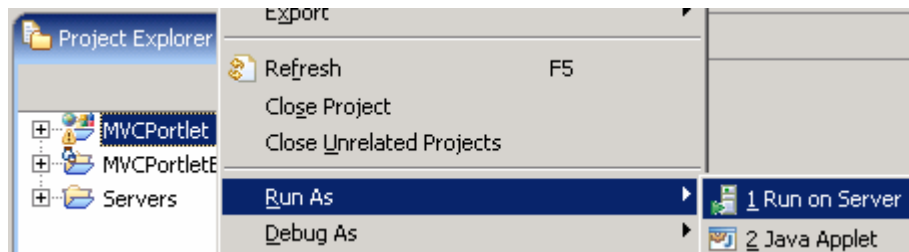   __ j. Change the line:

        10001 = /ConsumerDirect
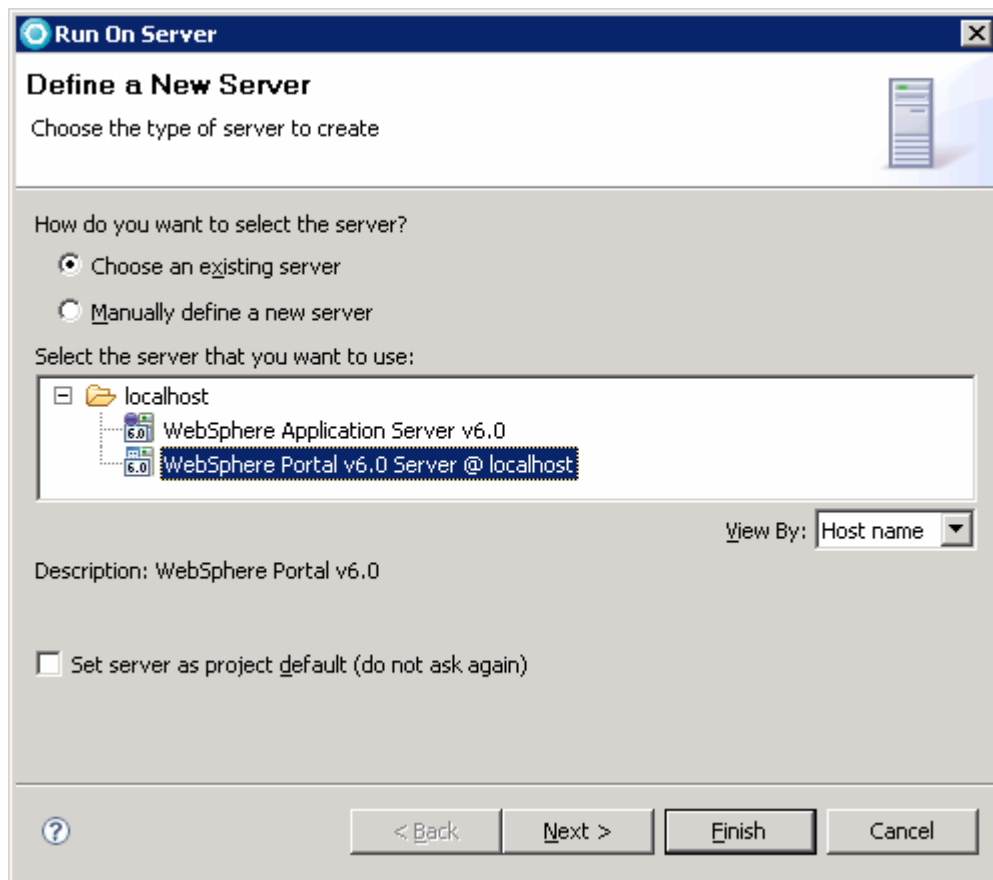
        To be:

        10101 = /ConsumerDirect

    __ k. Save the file (**Ctrl+s**) and close it.

_____ 27. Deploy the sample portlets into the portal server:

    __ l. From the **Project Explorer** view, right click on **MVCPortlet** project and select **Run As > Run On Server**

___ m. From the **Run on Server** dialog, select **WebSphere Portal v6.0 Server** and accept the rest as defaults.

___ n. Click **Next.**

___ o. Ensure **MVCPortletEAR** project is listed under **Configured Projects.**
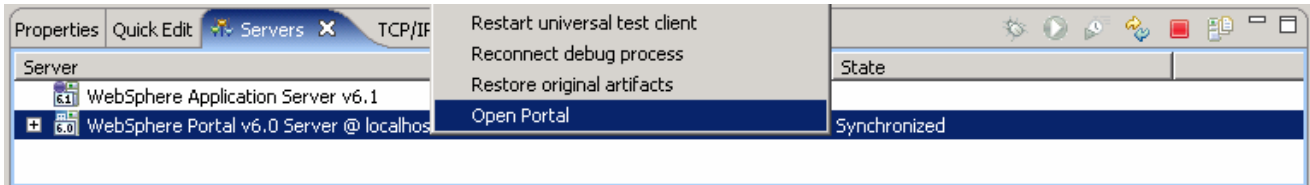
Deploying and configuring Commerce sample portlets
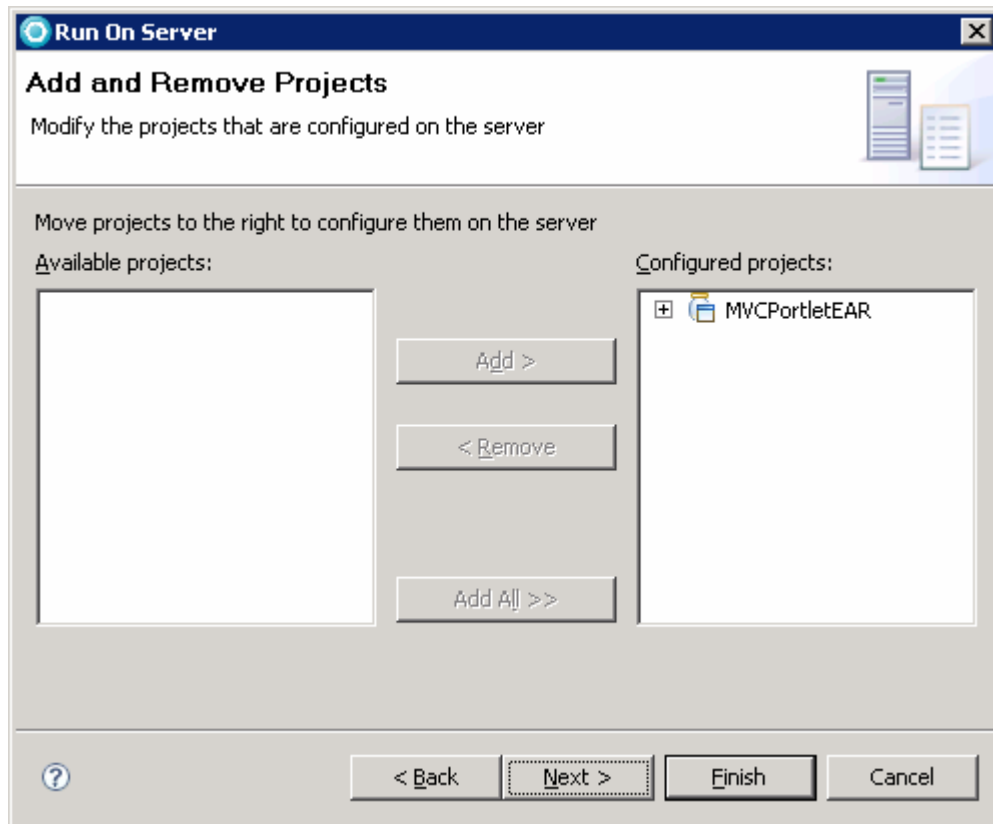
____ p. Click **Finish.**

____ q. The **MVCPortletEAR** application is deployed to the Portal Server. Ensure the application is started without errors.

Note: When you deploy the portlet with **Run on Server**, the WebSphere Portal test server is started. Wait until the server has finished starting before proceeding.

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Part 5: Configuring simulated single sign on for Commerce portlets

Simulated single sign-on is provided for ease of setup in Rational Application Developer where the portlet developer can be up and running without enabling security and without using LDAP. Speed of setup takes precedence over security in a development environment. To enable simulated single sign-on you must configure your WebSphere Portal Server machine.

____ 1. The WebSphere Portal administration page should be already opened. If it is not, you can open it by right clicking over the WebSphere Portal test server in the **Servers** view, and select **Open Portal**.

Properties	Quick Edit	⚙ Servers ✕	TCP/IP	Restart universal test client		⟳ ▶ ⟳ ⚙ ■ ᴾᴮ ▬ ☐
				Reconnect debug process		
Server				Restore original artifacts	State	
	🖥 WebSphere Application Server v6.1			Open Portal		
⊞	🖥 WebSphere Portal v6.0 Server @ localhos				Synchronized	

____ 28. Click **Administration** located at the bottom of the portal page.

____ 29. Click **Portlet Management > Portlets** on the left navigation frame of the Portal Administration console

____ 30. On the right frame under **Manage Portlets**, use the following search criteria to locate the appropriate portlet:

- Set the **Search by** field as **Title contains** and type Commerce in the **Search** field and click the **Search** button

Search by: Title contains ▼ Search: Commerce **Search**

____ 31. Seven WebSphere Commerce sample portlets are shown as below:

					Page 1 of 1
Title	Unique name	Provided	Remote portlet	Status	
WebSphere Commerce - Search					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - Product					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - My Order					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - My Cart					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - My Account					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - Catalog					⚙ 🗋 ✎ 🗑 🔑
WebSphere Commerce - Cashier					⚙ 🗋 ✎ 🗑 🔑
					Page 1 of 1

____ 32. For each and every WebSphere Commerce Portlet listed, click **Configure Portlet** (✎) icon.

____ 33. In the **Manage Portlets** page:

__ a. Use the **New parameter** and **New value** fields to add following new parameters and values:

.**AuthenticationType :**   **simulated**

.**SimulatedSSOUserName :**   <WCDE_ADMIN>

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.SimulatedSSOPassword :   <WCDE_ADMIN_PASS>

Note: Each parameter name has a prefix ".". Ensure that no additional spaces are included when entering the authentication type. Including additional spaces causes errors.

Efficiency Tip: Copy the 3 pairs of variable/value pairs into notepad, filling in the appropriate user and password. Verify the spelling. Then copy and paste the values , one at a time, into the proper edit fields.

____ 34. An example of parameters for **WebSphere Commerce - Search** portlet is shown in the picture below:

Manage Portlets

Configure portlet WebSphere Commerce - Search

Parameters and Values Enter a new parameter and value pair in the blank fields to create a new parameter for this portlet, or click Delete to remove a parameter and value. Click OK to keep your changes or Cancel to quit.

New parameter: New value:

                                                        Add

Page 1 of 1

Parameter	Value		
.SimulatedSSOUserName	wcsadmin		
.AuthenticationType	simulated		
.SimulatedSSOPassword	wcsadm1n		
.ContextDefault-storeId	10101		
com.ibm.portal.pagecontext.enable	true		
com.ibm.portal.propertybroker.wsdllocation	/wsdl/Search.wsdl		

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____ 35. Click **OK** on the bottom of **Manage Portlets** page.

____ 36. Repeat these steps for each portlet.

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Part 6: Set up the wires for the Commerce portlets

_____ 1. Click **Portal User Interface > Manage Pages**.

_____ 37. Navigate to the **MVCPortlet** portal page by following the path **Content Root** > **Home** > **Rational portlets.**

_____ 38. Click the **Edit Page Layout** icon (✎) corresponding to the **MVCPortlet** page.

_____ 39. Select the **Wires** tab on the top.

_____ 40. Add the following wires:

Note: Click the "+" button after you have selected the wire type to create the wire.

___ a. Select the appropriate values listed in the table below:

Source portlet	Sending	Target page	Target portlet	Receiving	*Wire type*
WebSphere Commerce - Catalog	catalogId	MVCPortlet	WebSphere Commerce - Product	Catalog_Product,catalogId	*Public*
WebSphere Commerce - Catalog	catGroupId	MVCPortlet	WebSphere Commerce - Product	Catalog_Product,catGroupId	*Public*
WebSphere Commerce - Cashier	catEntryId	MVCPortlet	WebSphere Commerce - Product	Cashier_Product,catEntryId	*Public*
WebSphere Commerce - My Cart	orderId	MVCPortlet	WebSphere Commerce - My Account	MyCart_MyAccount,orderId	*Public*
WebSphere Commerce - My Cart	orderId Ensure you chose the second orderId in the list for this wire	MVCPortlet	WebSphere Commerce - Cashier	MyCart_Cashier,orderId	*Public*

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	orderId Select One orderId **orderId** catEntryId				
WebSphere Commerce - My Cart	catEntryId	MVCPortlet	WebSphere Commerce - Product	MyCart_Product,catEntryId	*Public*
WebSphere Commerce - My Order	catEntryId	MVCPortlet	WebSphere Commerce - Product	MyOrder_Product,catEntryId	*Public*
WebSphere Commerce - Search	*criteria*	*MVCPortlet*	*WebSphere Commerce - Product*	*Search_Product,criteria*	*Public*

__ b. The final image of the wires must look like the picture below:

Wires for page: **MVCPortlet**

Source portlet	Sending	Target page	Target portlet	Receiving	Wire Type	
WebSphere Commerce - Catalog	catalogId	MVCPortlet	WebSphere Commerce - Product	Catalog_Product,catalogId	Public	🗑
WebSphere Commerce - Catalog	catGroupId	MVCPortlet	WebSphere Commerce - Product	Catalog_Product,catGroupId	Public	🗑
WebSphere Commerce - Cashier	catEntryId	MVCPortlet	WebSphere Commerce - Product	Cashier_Product,catEntryId	Public	🗑
WebSphere Commerce - My Cart	orderId	MVCPortlet	WebSphere Commerce - My Account	MyCart_MyAccount,orderId	Public	🗑
WebSphere Commerce - My Cart	orderId	MVCPortlet	WebSphere Commerce - Cashier	MyCart_Cashier,orderId	Public	🗑
WebSphere Commerce - My Cart	catEntryId	MVCPortlet	WebSphere Commerce - Product	MyCart_Product,catEntryId	Public	🗑
WebSphere Commerce - My Order	catEntryId	MVCPortlet	WebSphere Commerce - Product	MyOrder_Product,catEntryId	Public	🗑
WebSphere Commerce - Search	criteria	MVCPortlet	WebSphere Commerce - Product	Search_Product,criteria	Public	🗑

____ 41.   Click the **Done** button to save the changes.

Part 7: Register the static content URL reference on WebSphere Portal's WebSphere Application Server

____ 1.   In the Rational Application Developer V7 workbench, click the **Servers** tab.

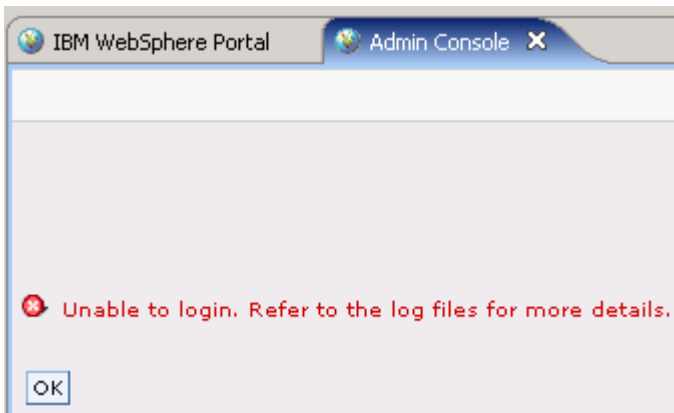____ 2.   Right-click **WebSphere Portal v6.0 Server** > **Run administrative console.**
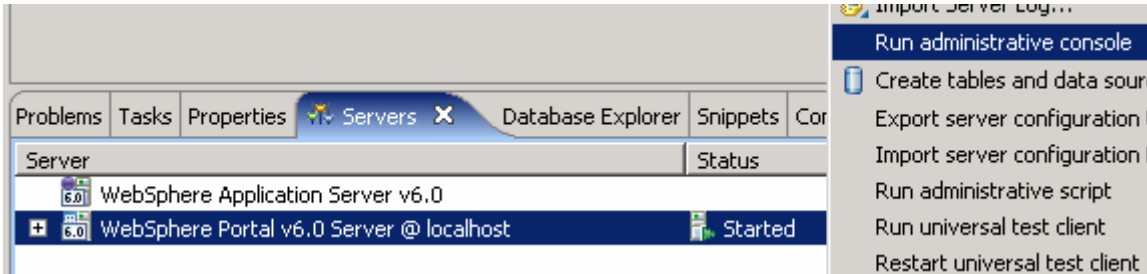
____ 3.   Logon to the administrative console using the following ID and password:

   User ID: <RAD7_WAS_ADMIN>

   Password: <RAD7_WAS_ADMIN_PASS>

Note: If you leave the Portal administrative console open, you get an error page shown below. Click **OK** , and you are redirected to the login page.

____ 4.   From the WebSphere Application Server administration console, select **Resources** > **URL Providers** > **Default URL Provider**.

____ 42. Under **Additional Properties** select **URLs.**

____ 43. Add a new URL reference:

   Name :   **External Content**

   JNDI name :   **url/com/ibm/commerce/foundation/client/portal/ExternalContent**

   Specification : http:// <WCDE_HOST>:<WCDE_CONSUMER_DIRECT_PORT>/wcsstore

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____ 44. Click **OK.**

____ 45. Save the configuration.

____ 46. Restart the portal server.

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Part 8: Verify operation of portlets

____ 1. Start the **WebSphere Commerce Test Server** if it has not been started. Open a new Command
Prompt window:
```
cd <WCDE_INSTALL_DIR>\bin
startWCServer
```

____ 2. Ensure the TCP/IP Monitor is started.

___ a. From your Rational Application Developer V7.0 workbench menu, select **Windows → Show
View... → Others → Debug → TCP/IP Monitor**
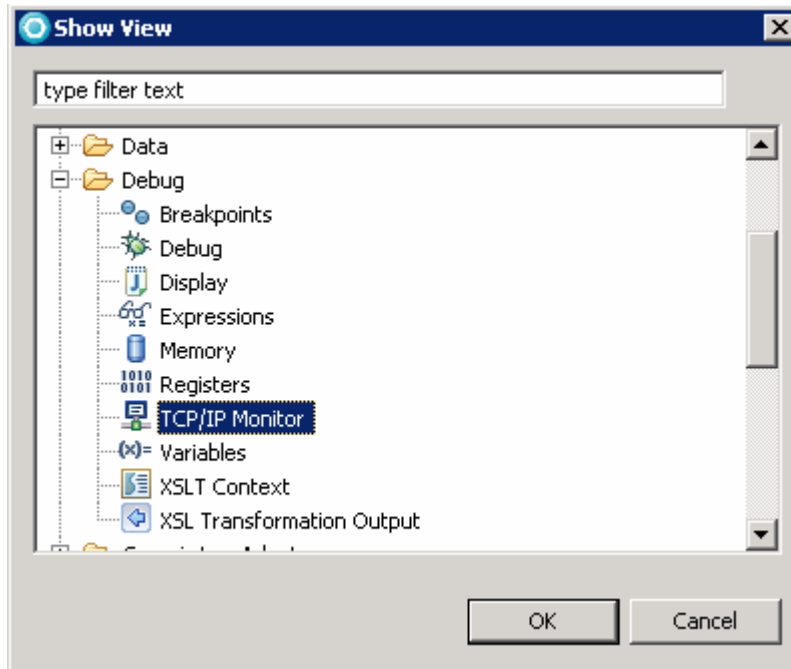
___ b. Click **OK**. The TCP/IP Monitor view shows up in the bottom right frame of the Rational
Application Developer workbench.

___ c. Click over the (▽) icon located at the right side of the **TCP/IP Monitor** view to select
Properties from the drop-down menu as shown in the picture below:
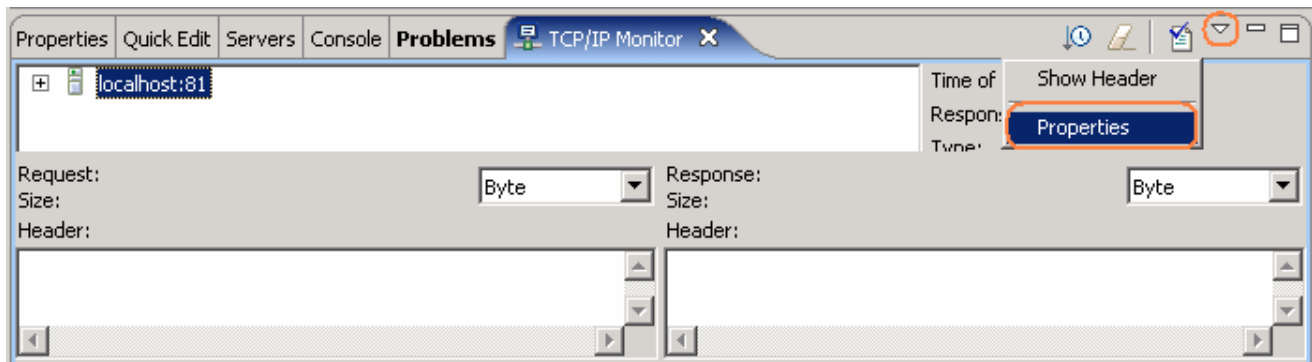
___ d. In the **TCP/IP Monitor** dialog, if the monitor status is **Stopped,** select it and click the **Start** button
and ensure the status is shown as **Started.**

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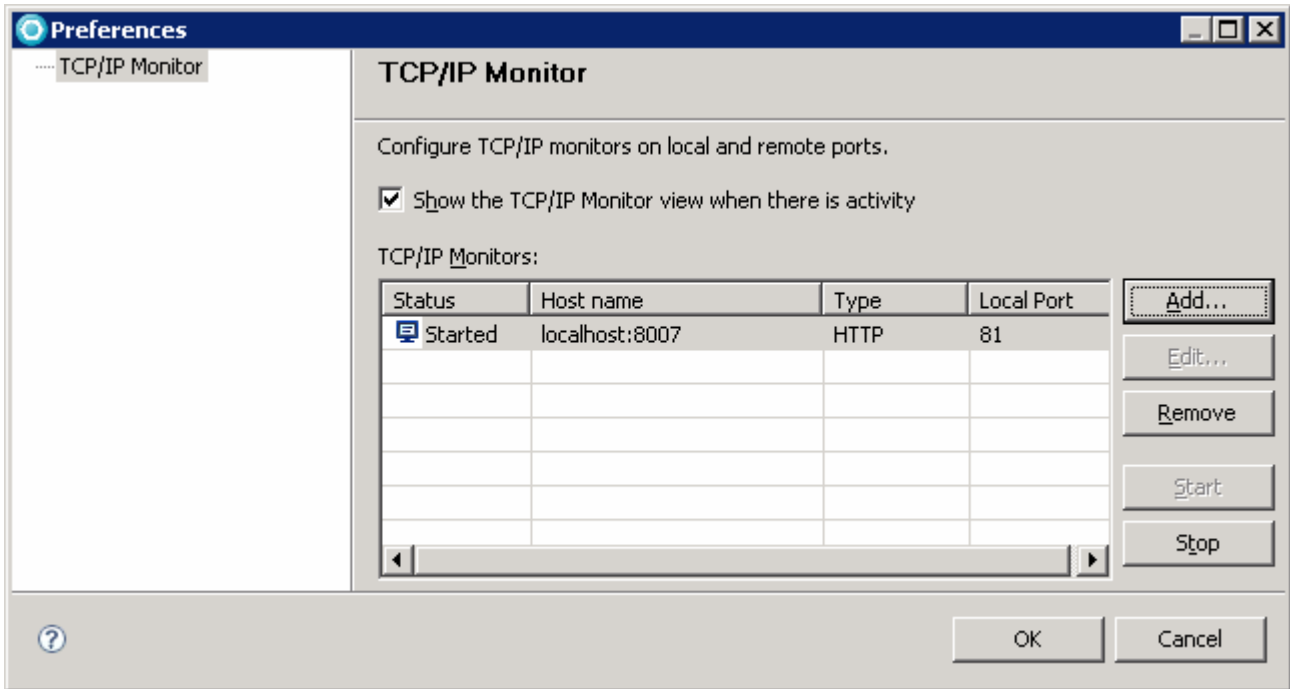
__ e. Click **OK.**

____ 3.   In the **Servers** view, right click over the **WebSphere Portal 6.0 Server** and select **Open Portal** to open the Portal site.
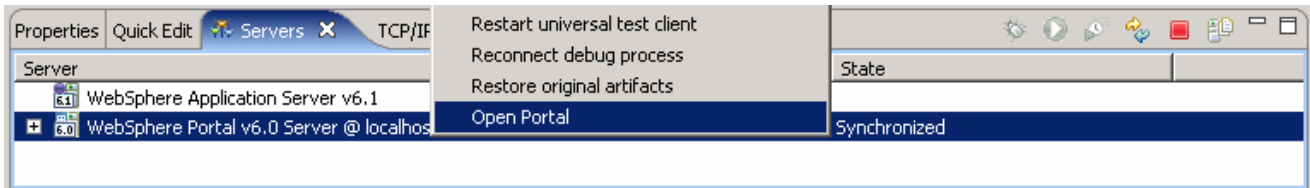
____ 47.   The MVCPortlet page with the seven rendered portlets is shown below:

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Launch ↘ Home > Rational portlets > MVCPortlet >

Rational portlets | Welcome | Getting Started

MVCPortlet

WebSphere Commerce - Search

Search:

WebSphere Commerce - Catalog

Want to know what is new to our catalog?
Store master catalog
Chef's Delight

WebSphere Commerce - Product

You can select or drag a category to be displayed here.

WebSphere Commerce - Cashier

You can initiate the checkout from your shopping cart.

WebSphere Commerce - My Cart

Your shopping cart is empty.

WebSphere Commerce - My Order

No orders found.

Deploying and configuring Commerce sample portlets

____ 48. Exercise the portlets by typing a search item into the search portlet. Pick some of the items that are listed in Consumer Direct, such as **pan**. You should get a result in the Product portlet.

____ 49. Now select one of the pans, and then select **Add to Cart**. You should wait at least 5 minutes for the first time you add an item to the shopping cart. Upon completion, you should see the item in the

shopping cart.

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What you did in this exercise

You learned how to install and configure the WebSphere Commerce sample portlets and how to do basic shopping operations with portlets.

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