

# **JBoss Portal Tools Reference Guide**

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# JBoss Portal Tools Reference Guide

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# Introduction

Starting from 3.0.0.Alpha1 version, JBoss set of plugins extends [JBoss Portal](#) features. Thus, this guide is intended to explain you how to manage the functionality [JBoss Tools](#) provide to ease the development with [JBoss Portal](#).

## 1.1. Preface

[JBoss Portal](#) provides an open source platform for hosting and serving a portal's Web interface, publishing and managing its content, and customizing its experience. It supports a wide range of features, including standard portlets, single sign-on, clustering, and internationalization.

## 1.2. Key Features

The next table lists key features supplied by [JBoss Portal Tools](#).

**Table 1.1. Key Functionality of JBoss Portal Tools**

Feature	Benefit	Chapter
Wizards for creating Projects with Portlet Facets	New Dynamic Web Project wizard allows you to select a proper Configuration to enable Portlet Facet in it.	<a href="#">Creating a Dynamic Web Project</a>
Create Java Portlet wizard	The wizard enables creating a JSR-186/JSR-286 compliant portlet.	<a href="#">Adding Java Portlet to a project</a>
Create JSF/Seam Portlet wizard	This wizard allows to create JSF/Seam portlets	<a href="#">Creating JSF Portlet</a> <a href="#">Creating Seam Portlet</a>

## 1.3. Other relevant resources on the topic

- [JBoss Portal Home Page](#)
- [JBoss Portal Wiki](#)
- [JBoss Tools Home Page](#)
- [JBoss Tools Forum](#)

- [\*The latest JBossTools/JBDS documentation builds\*](#)
- [\*Stable JBossTools/JBDS documentation\*](#) (supplied with the latest JBDS release, 1.1.0 GA currently)



# Installation issues

This section provides you with the steps on how to start with [JBoss Portal](#) and integrated features using [JBoss Tools](#).

- First, you need to have Eclipse Ganymede with JBoss Tools 3.0.0.Alpha1 and higher installed.



## Tip:

Read [JBoss Tools Installation](#) section in our Getting Started documentation to find out how to install [JBoss Tools](#) onto Eclipse.

- Next, download the JBoss Portal + JBoss AS bundle from [JBoss Portal Download page](#)



## Note:

You need JBoss Portal 2.7 if you want to work with a Portlet 2.0

- Extract the bundle wherever you want on your hard drive

Now, when you have it installed, we are going to demonstrate some powerful features of [JBoss Portal](#) tooling for Eclipse.

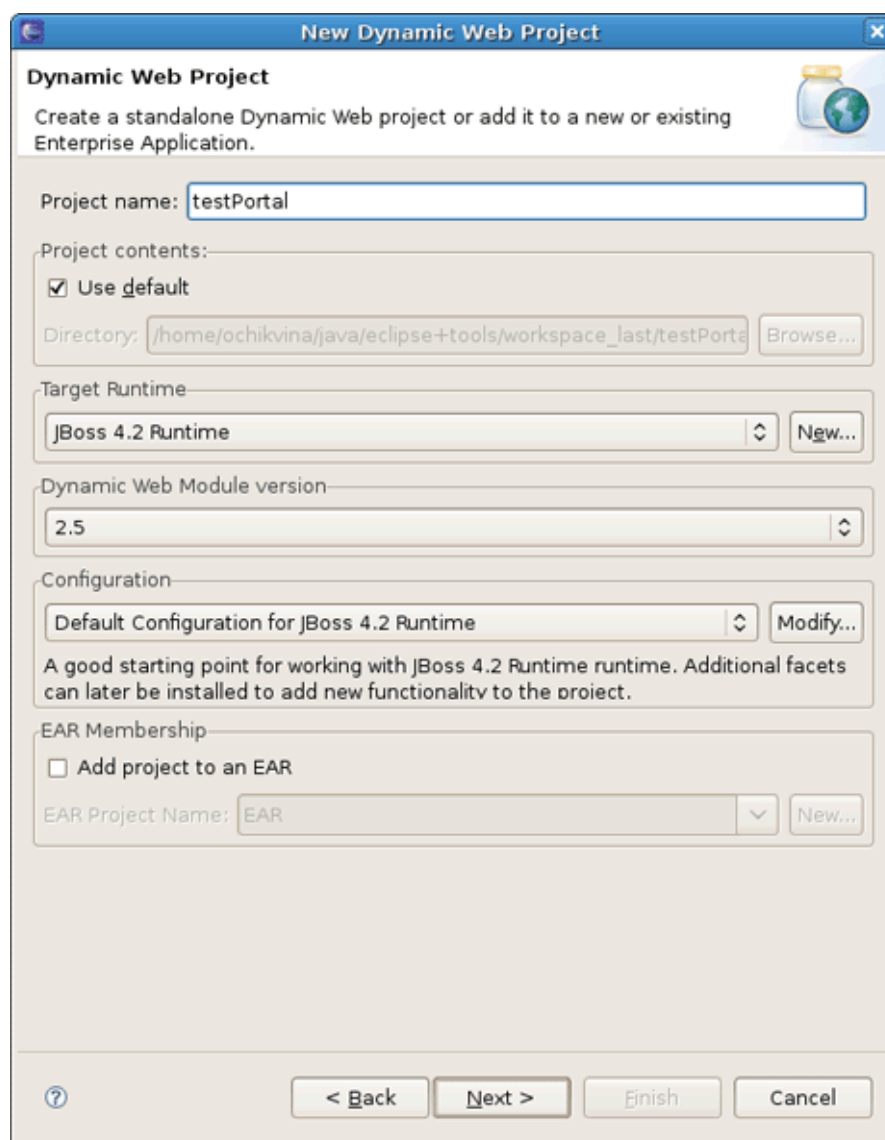
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# Starting the Project with JBoss Portal

To get started with [JBoss Portal](#) and [JBoss Tools](#), you should first have a Web Project pointed to the JBoss Portal Runtime. Thus, in this chapter we are going to show you how to create a Dynamic Web Project, add Java Portlet to it and deploy it to the [JBoss Portal](#).

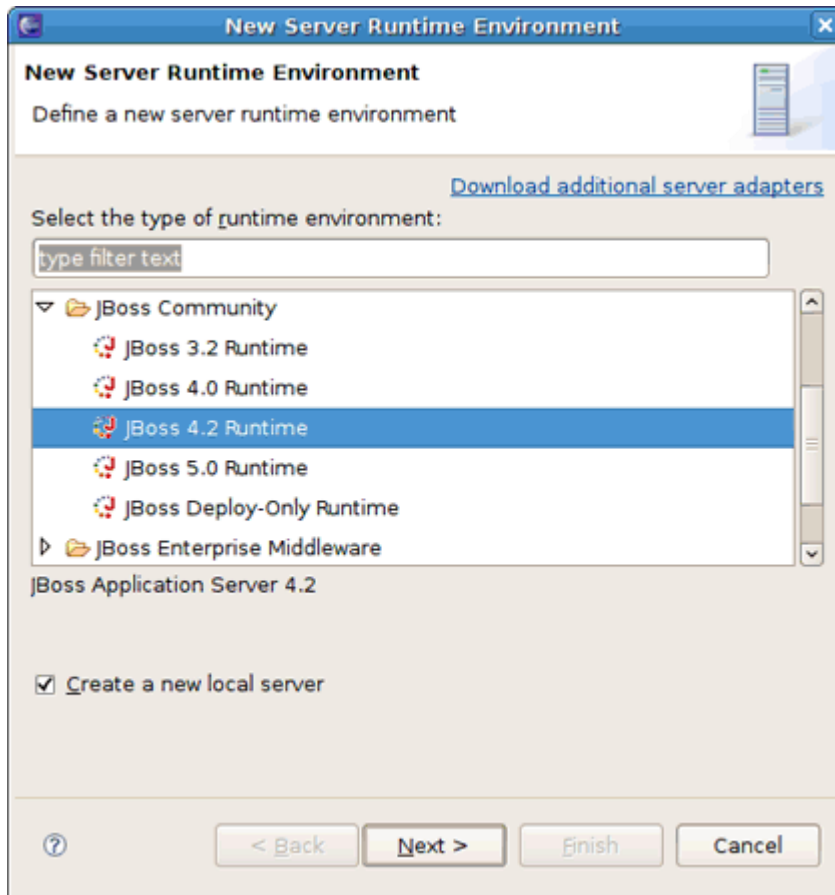
## 3.1. Creating a Dynamic Web Project

To create a Dynamic Web Project, go to [File > New > Dynamic Web Project](#) if you are in the [Web Perspective](#) or [File > New > Other > Web > Dynamic Web Project](#) in any other Perspective. The first page of the New Dynamic Web Project wizard looks as follows.



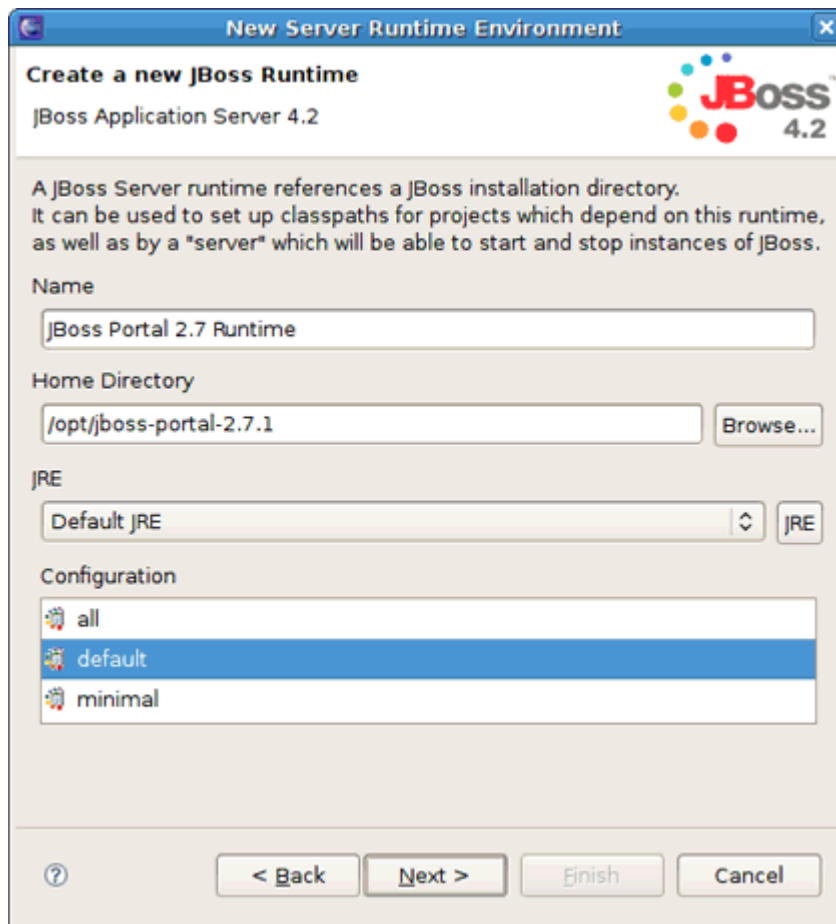
**Figure 3.1. New Dynamic Web Project**

Fill out the name of your project. Next, click the [New](#) button in the [Target Runtime](#) section to specify a new Target Runtime. Choose [JBoss Community > JBoss 4.2 Runtime](#) and select the [Create a new local server](#) checkbox. Click [Next](#).



**Figure 3.2. New Server Runtime**

On the next page you should give a name to the runtime. Let's call it *JBoss Portal 2.7 Runtime* , and then point it to the location of your JBoss AS + Portal installation.



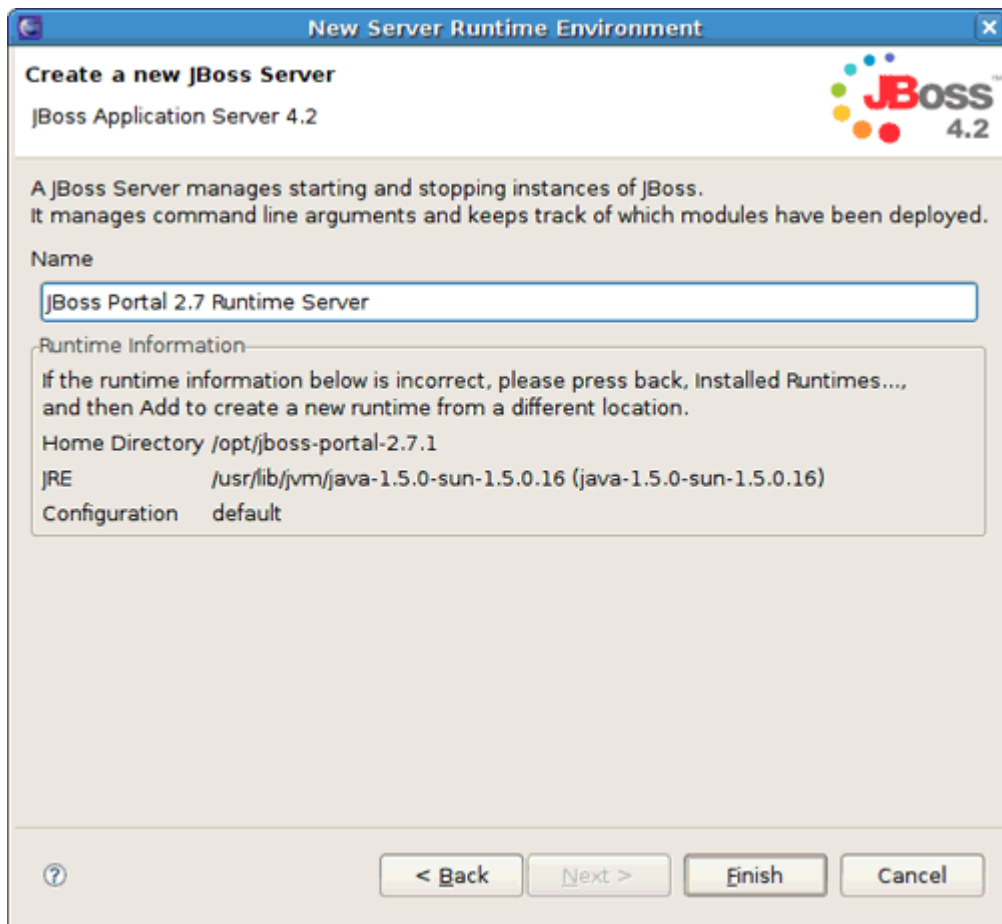
**Figure 3.3. New Server Runtime Environment**



### Note:

The JBoss Tools Portlet feature has been tested using 2.6.5 and 2.7.0.ALPHA versions of [JBoss Portal](#). Remember, if you want to use Portlet version 2.0 (JSR-268), you have to choose JBoss Portal 2.7.

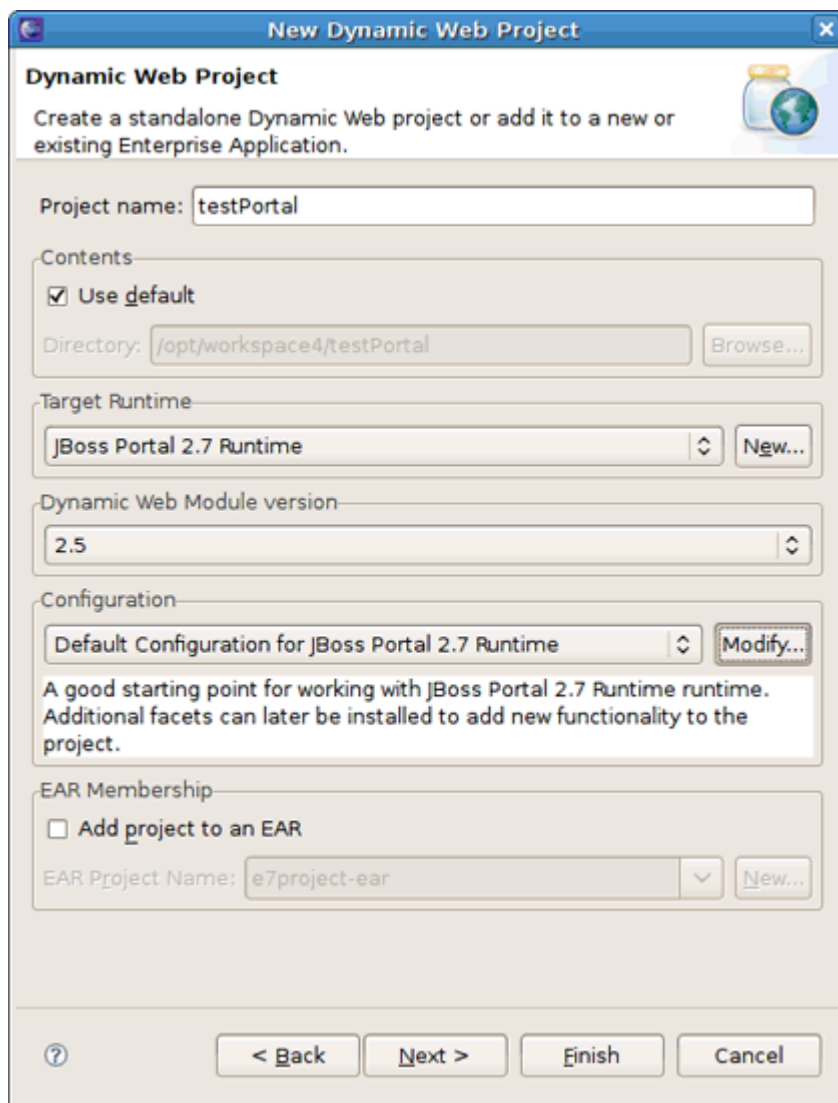
At this point a new JBoss Server instance will be created. Here you can verify the defined runtime information. If something is incorrect, press [Back](#) to return on the previous wizard page.



**Figure 3.4. Target Server**

Click [Finish](#).

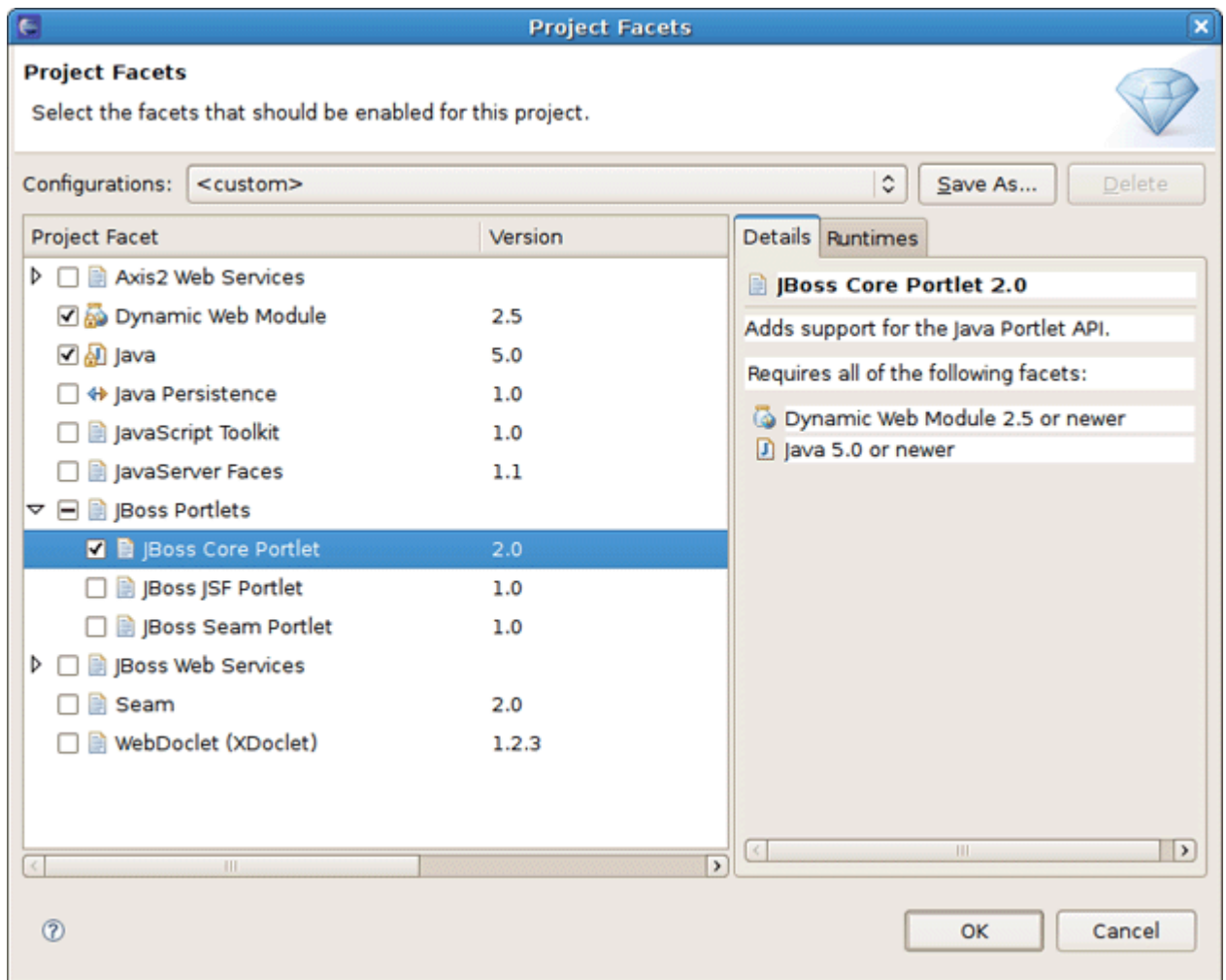
On the next step you should click the [Modify](#) button next to the [Configuration](#) section to enable Portlet Facets for the project.



**Figure 3.5. Setting the Project Configuration**

On this page you should check the [JBoss Core Portlet](#) and press [OK](#).





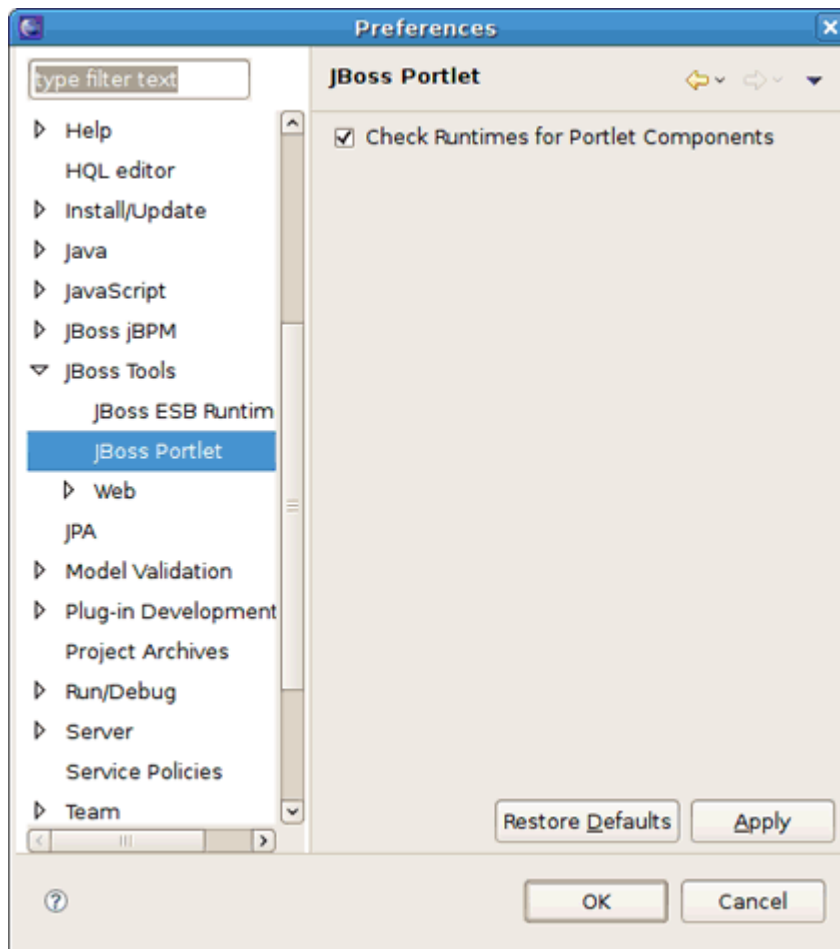
**Figure 3.6. Enabling the Portlet Facet**



### Note:

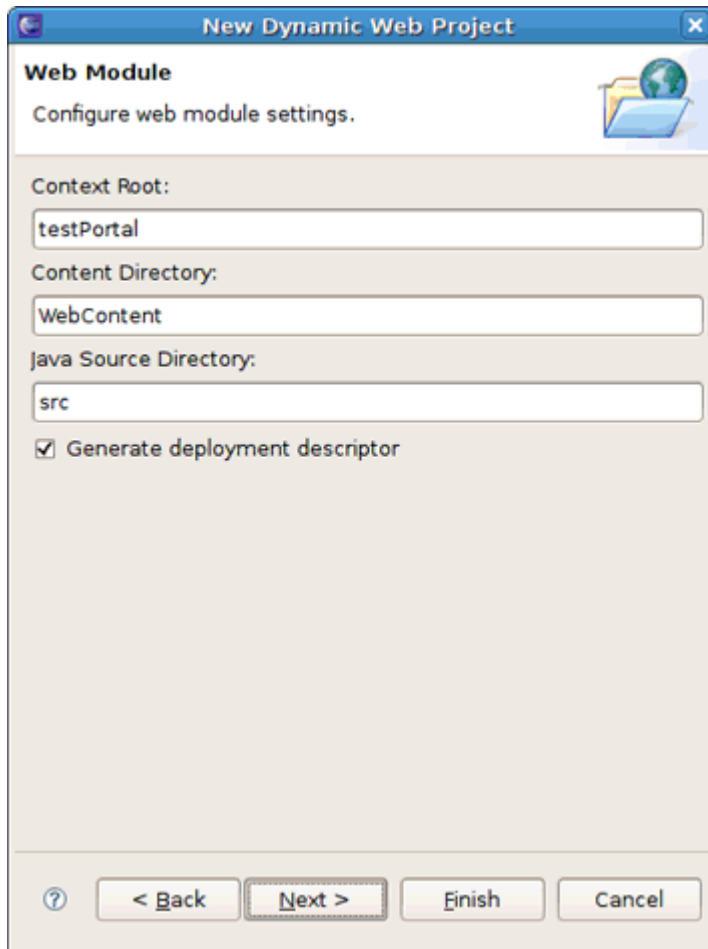
If the portlet libraries aren't available in the runtime you targeted, JBoss Portlet facets will be hidden on this page.

To make portal functionality always visible no matter what the runtime support, you should go to [Window > Preferences](#) and then [JBoss Tools > JBoss Portlet](#) and deselect [Check runtimes for Portlet Components](#) checkbox (see figure below).



**Figure 3.7. JBoss Runtime Preferences**

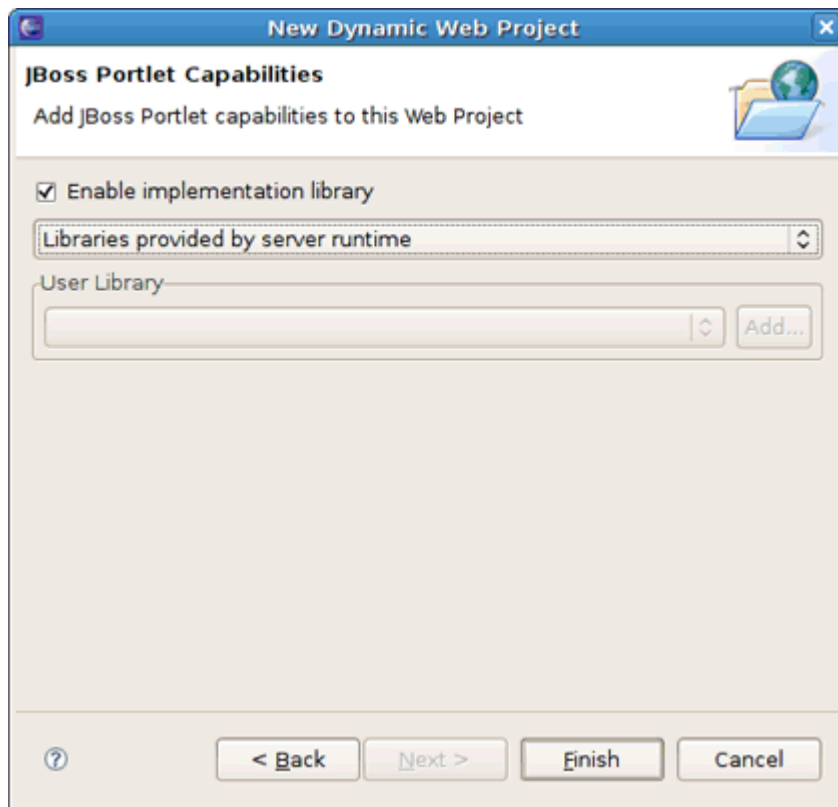
The next page is for configuring web modules. Here all values are set, so you can leave everything as it is.



**Figure 3.8. The Project Web Modules**

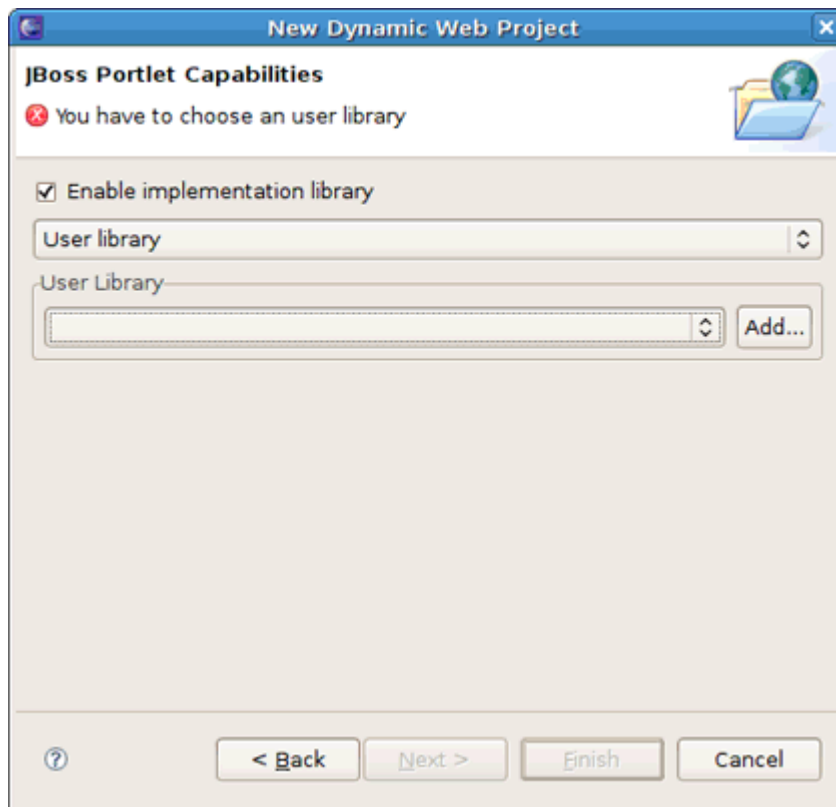
Finally, the last wizard page will ask you to add JBoss Portlet capabilities to your project. Here you can choose whether to set up user libraries, libraries provided by server runtime or not include libraries at all.

- To set up server runtime libraries, you need to select *Libraries provided by server runtime* in the list box.



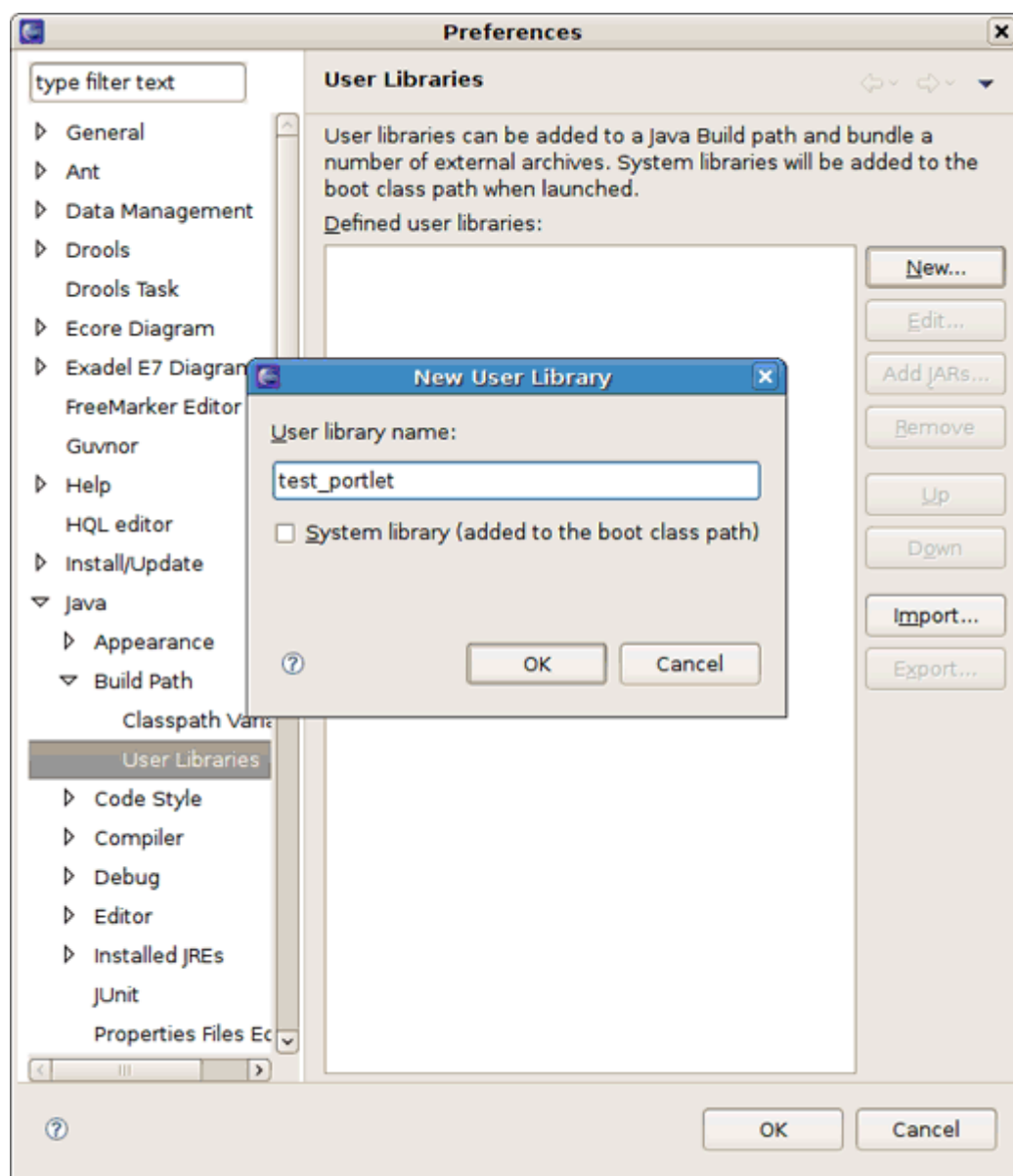
**Figure 3.9. Including Server Runtime Libraries**

- For setting up user libraries, select *User library* in the list box and then press *Add* in the *User Library* section.



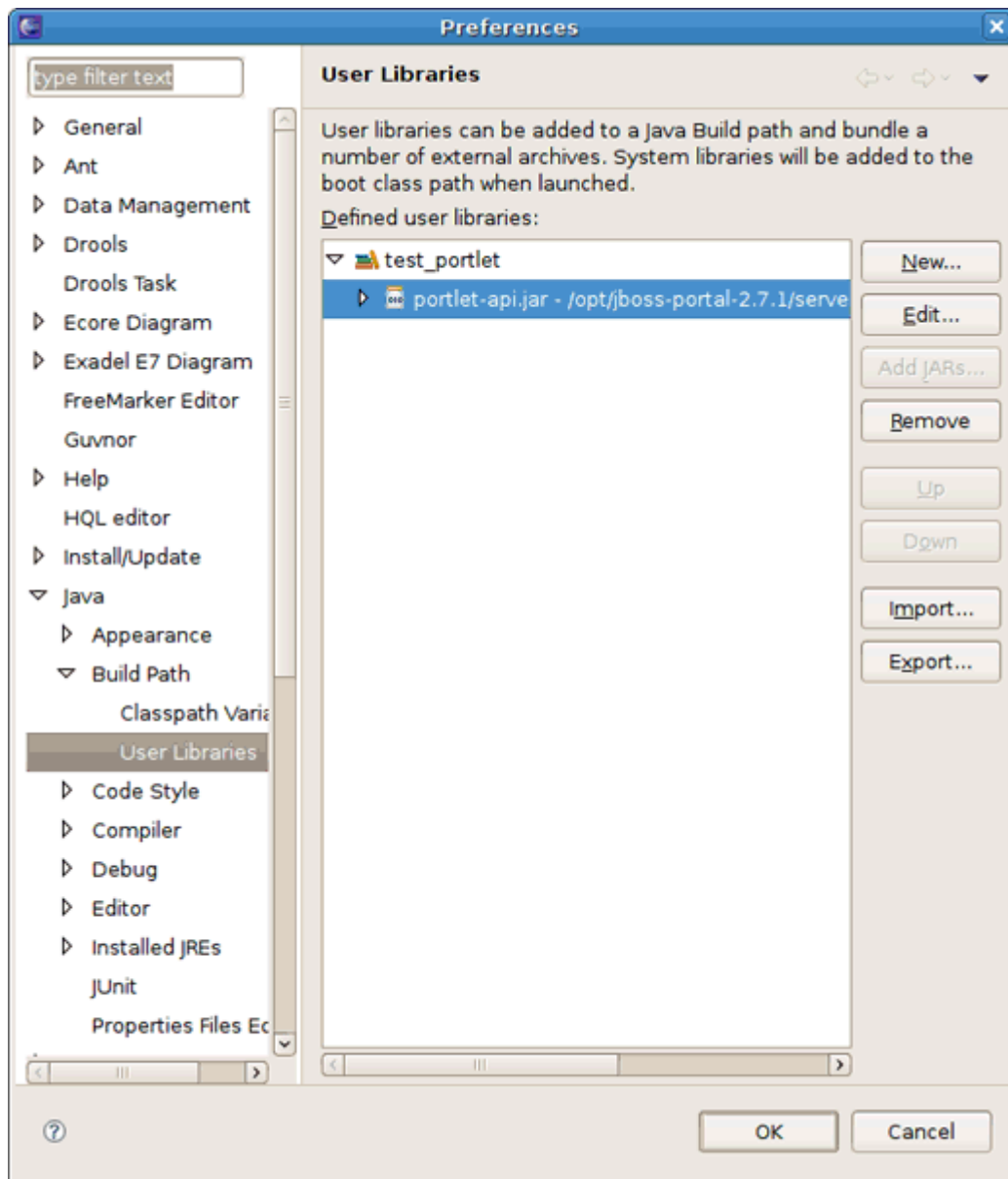
**Figure 3.10. Adding User Library**

Then press [New](#) and type the user library name in the appeared dialog.



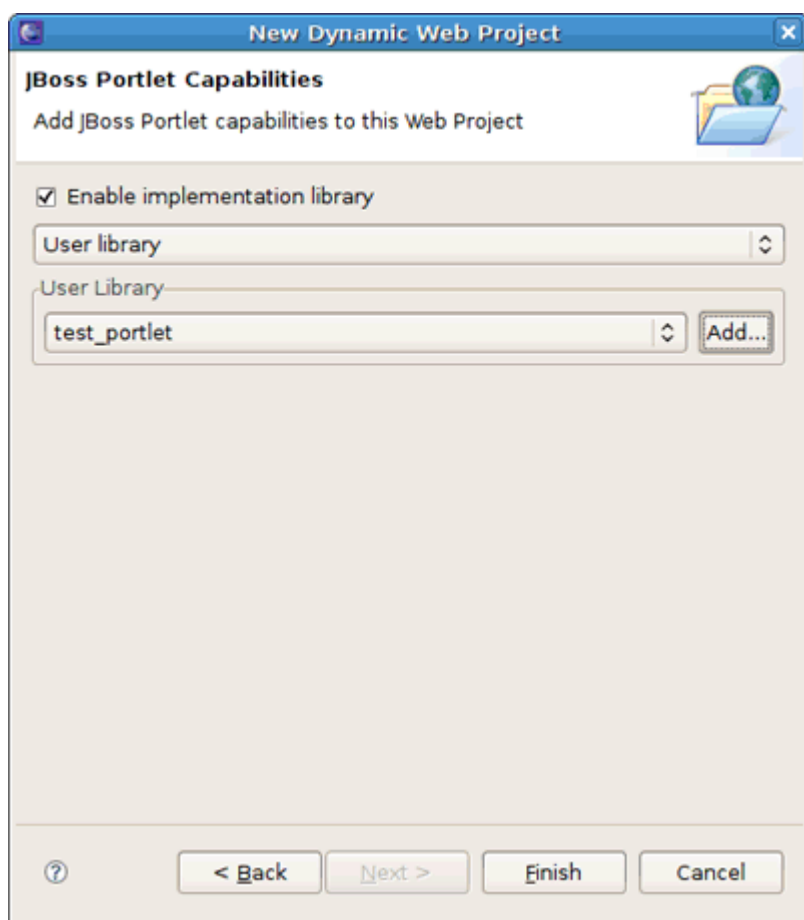
**Figure 3.11. Adding User Library**

Next add necessary jar's.



**Figure 3.12. Adding the Portlet API Jar**

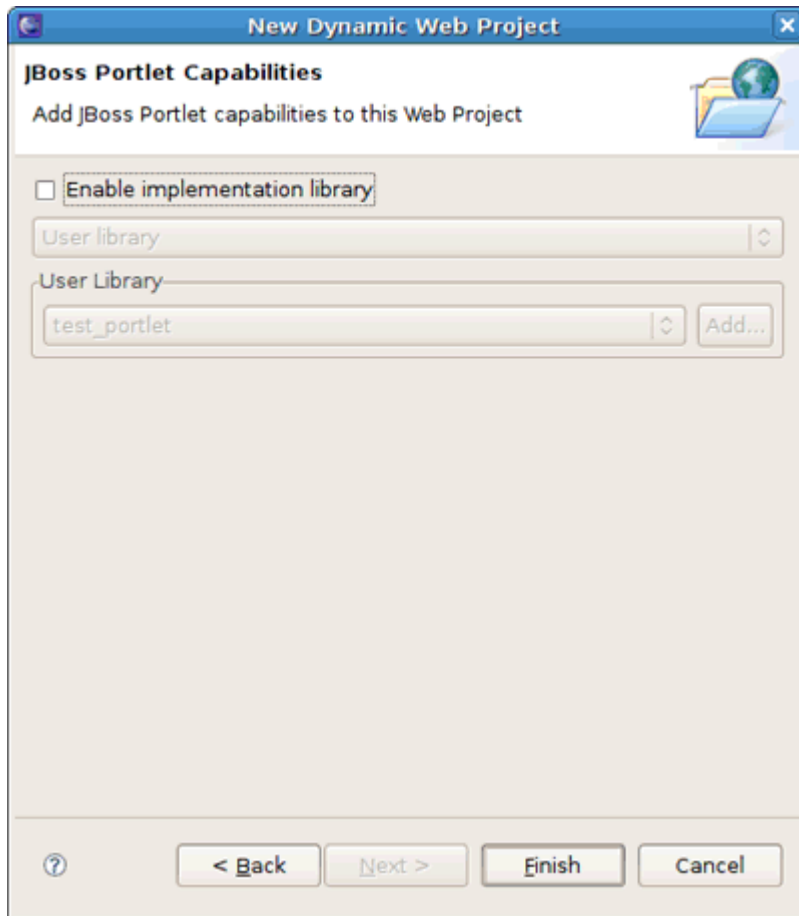
Hit **OK**. The user library will be added.



**Figure 3.13. User Library Added**

- If you don't need to include libraries at all, just deselect the *Enable implementation library* checkbox.





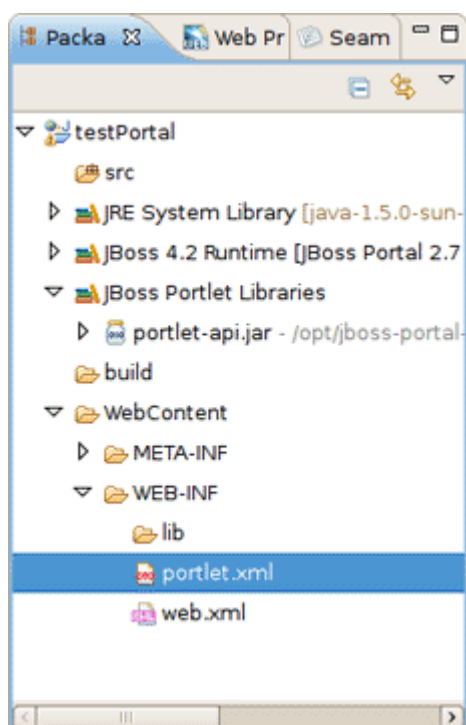
**Figure 3.14. Disabling Implementation Libraries**

After setting JBoss Portlet capabilities press [Finish](#).

That's it! Our base project is done.

## 3.2. The Project Structure Overview

Now, let's look at the structure of the just created project.



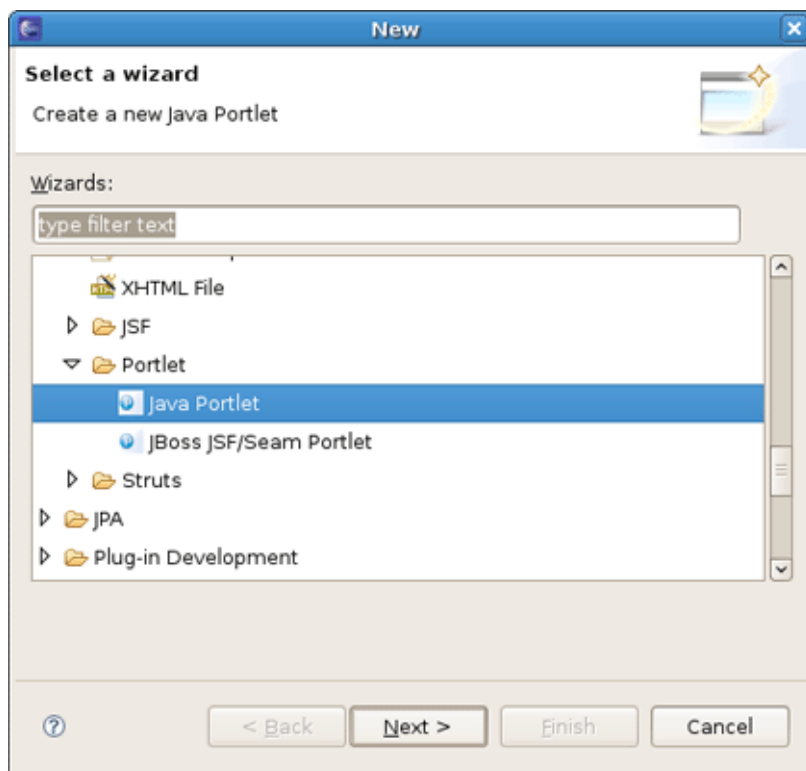
**Figure 3.15. The Project Structure Overview**

Here [JBoos Tools](#) added JBoss Portlet facet to the project, created an empty [portlet.xml](#) file and added the Portlet library to the project classpath.

### 3.3. Adding a Java Portlet to the Project

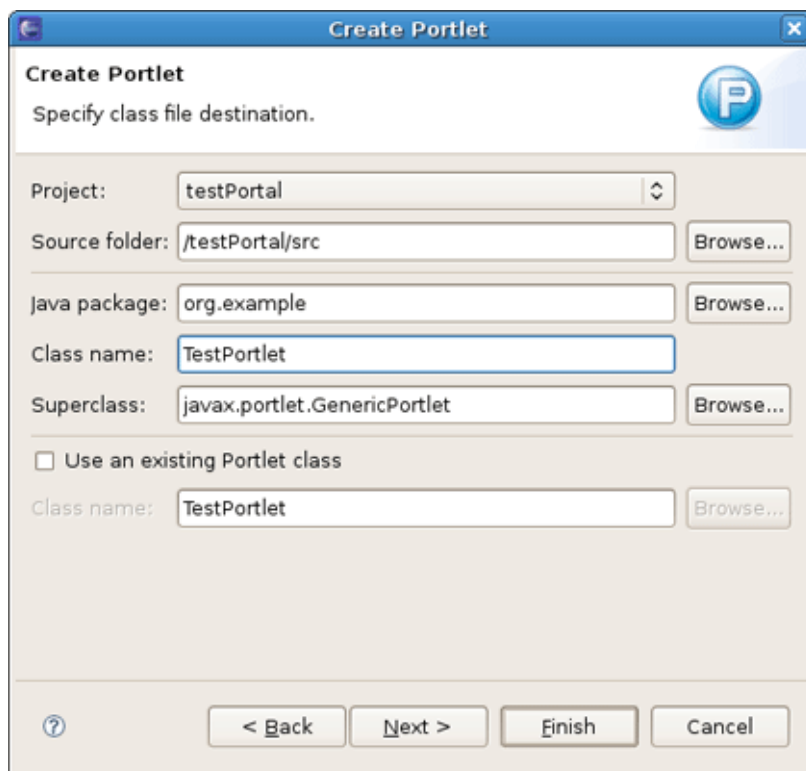
At this point we'll show what the steps you need to proceed to add a new Java Portlet to the project.

Call the [Create Portlet wizard](#) by selecting [New > Other > JBoss Tools Web > Portlet > Java Portlet](#).



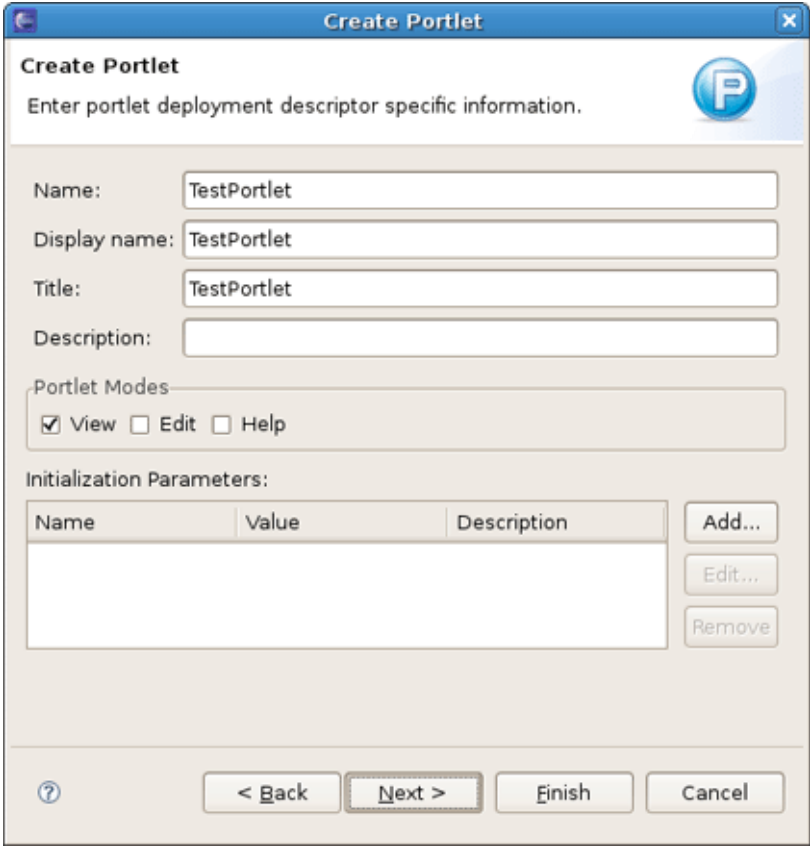
**Figure 3.16. New Java Portlet**

The wizard fills in the Web Project and Source Folder fields for you. Then you need to specify the Java package and the Class name and click [Next](#).



**Figure 3.17. Specifying Class File Destination**

On the other page you will be able to set the display name of the Portlet, a title, a description, the supported modes and init parameters.



The image shows a 'Create Portlet' dialog box with a blue title bar and a close button. The main area is light beige. At the top, it says 'Create Portlet' and 'Enter portlet deployment descriptor specific information.' with a blue 'P' icon. Below are four text input fields: 'Name:' (TestPortlet), 'Display name:' (TestPortlet), 'Title:' (TestPortlet), and 'Description:' (empty). Under 'Portlet Modes', there are three checkboxes: 'View' (checked), 'Edit' (unchecked), and 'Help' (unchecked). Below that is the 'Initialization Parameters' section, which contains a table with columns 'Name', 'Value', and 'Description'. The table is currently empty. To the right of the table are three buttons: 'Add...', 'Edit...', and 'Remove'. At the bottom left is a help icon (?). At the bottom right are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

**Create Portlet**  
Enter portlet deployment descriptor specific information.

Name: TestPortlet  
Display name: TestPortlet  
Title: TestPortlet  
Description:

Portlet Modes  
☒ View ☐ Edit ☐ Help

Initialization Parameters:

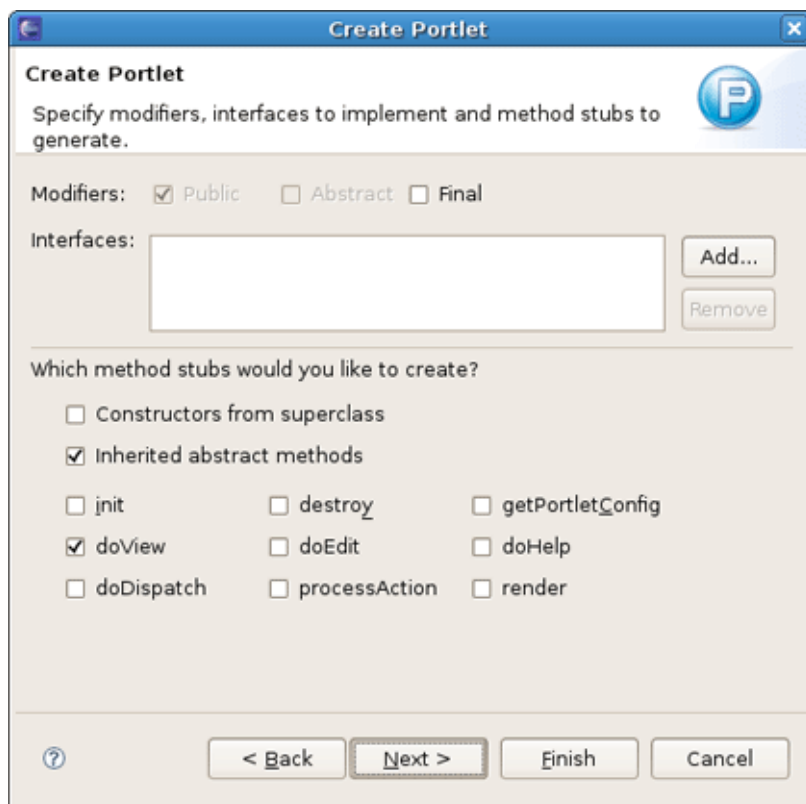
Name	Value	Description
------	-------	-------------

Add...  
Edit...  
Remove

? < Back Next > Finish Cancel

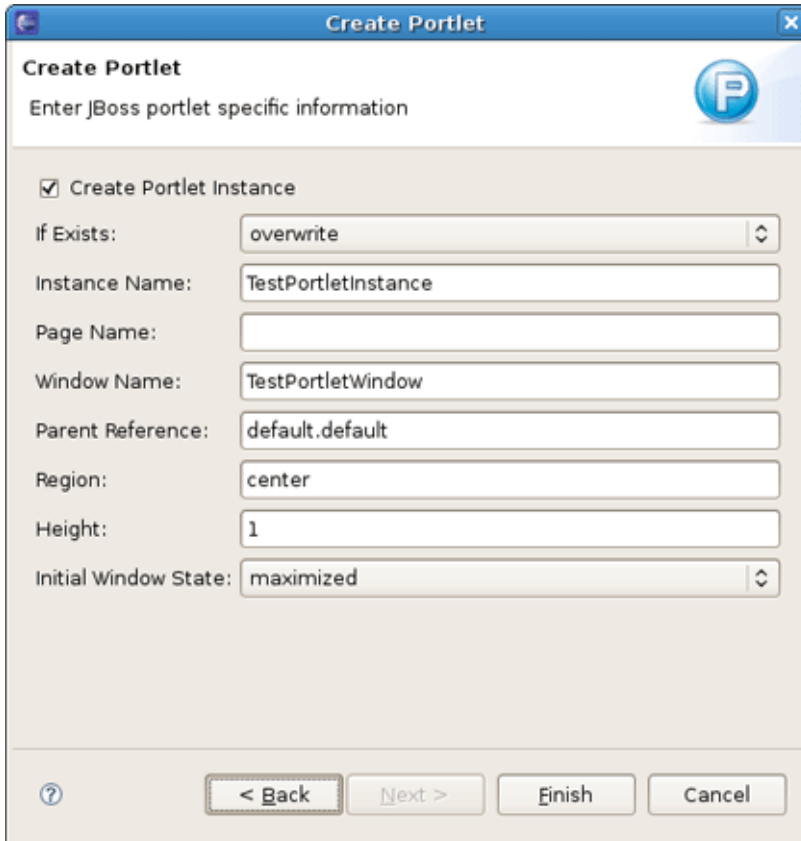
**Figure 3.18. Specifying Class File Destination**

On the next screen you can define which methods from *GenericPortlet* you want to override.



**Figure 3.19. Specifying Class File Destination**

The last screen lets you build [JBoss Portal](#) specific descriptors to create an instance during the deployment and place it directly on the Portal.

The image shows a 'Create Portlet' dialog box with a blue title bar and a 'P' icon. The main area is titled 'Create Portlet' and 'Enter JBoss portlet specific information'. It contains a checked checkbox 'Create Portlet Instance'. Below it are several input fields: 'If Exists:' with a dropdown set to 'overwrite', 'Instance Name:' with 'TestPortletInstance', 'Page Name:' (empty), 'Window Name:' with 'TestPortletWindow', 'Parent Reference:' with 'default.default', 'Region:' with 'center', 'Height:' with '1', and 'Initial Window State:' with a dropdown set to 'maximized'. At the bottom are buttons for '< Back', 'Next >', 'Finish', and 'Cancel', along with a help icon.

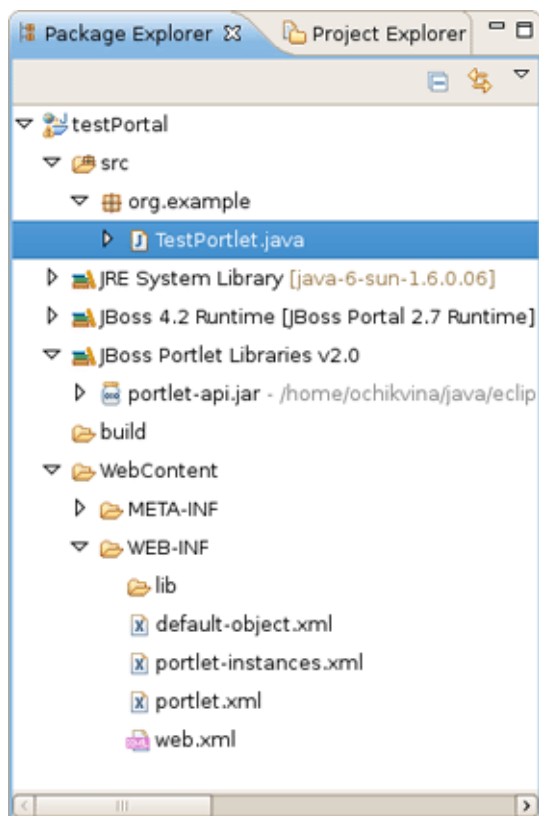
**Figure 3.20. Specifying Class File Destination**



**Tip:**

If you uncheck the *Create Portlet Instance* checkbox, [JBoss Tools](#) won't create the deployment elements in the *default-object.xml* and *portlet-instances.xml* files.

Once Java Portlet is created, new resources have been added to the project structure. As you can see on the figure below, it adds a Java Portlet class ( [TestPortlet.java](#) in our case), [default-object.xml](#) and [portlet-instances.xml](#) files and updates [portlet.xml](#) as well.



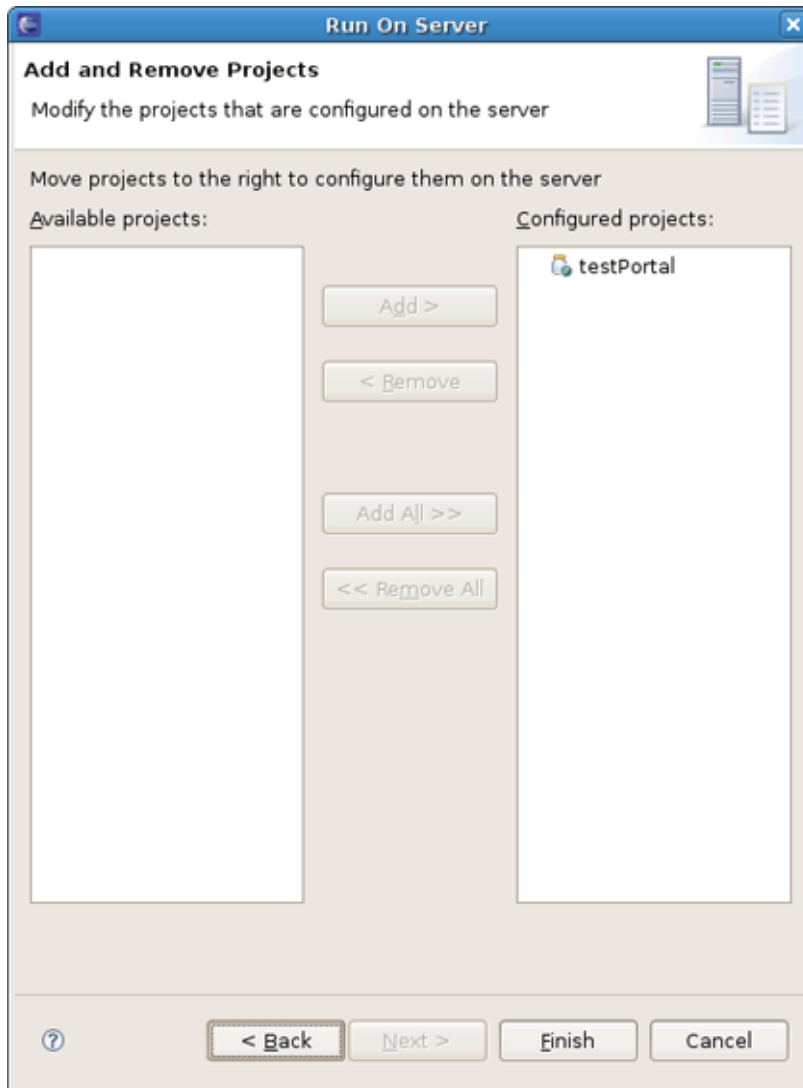
**Figure 3.21. The structure of Web Project with Java Portlet created**

Thus, now the Project is ready to be built and deployed.

### 3.4. Deploying a Portlet to JBoss Portal

You can deploy the created project in the way you deploy any other Web Application. Right click on the project and do [Run As > Run On Server](#) and accept the defaults. On the [Add and Remove Projects](#) page move the created Project to the right and click [Finish](#).





**Figure 3.22. Deploying the Portlet Application**

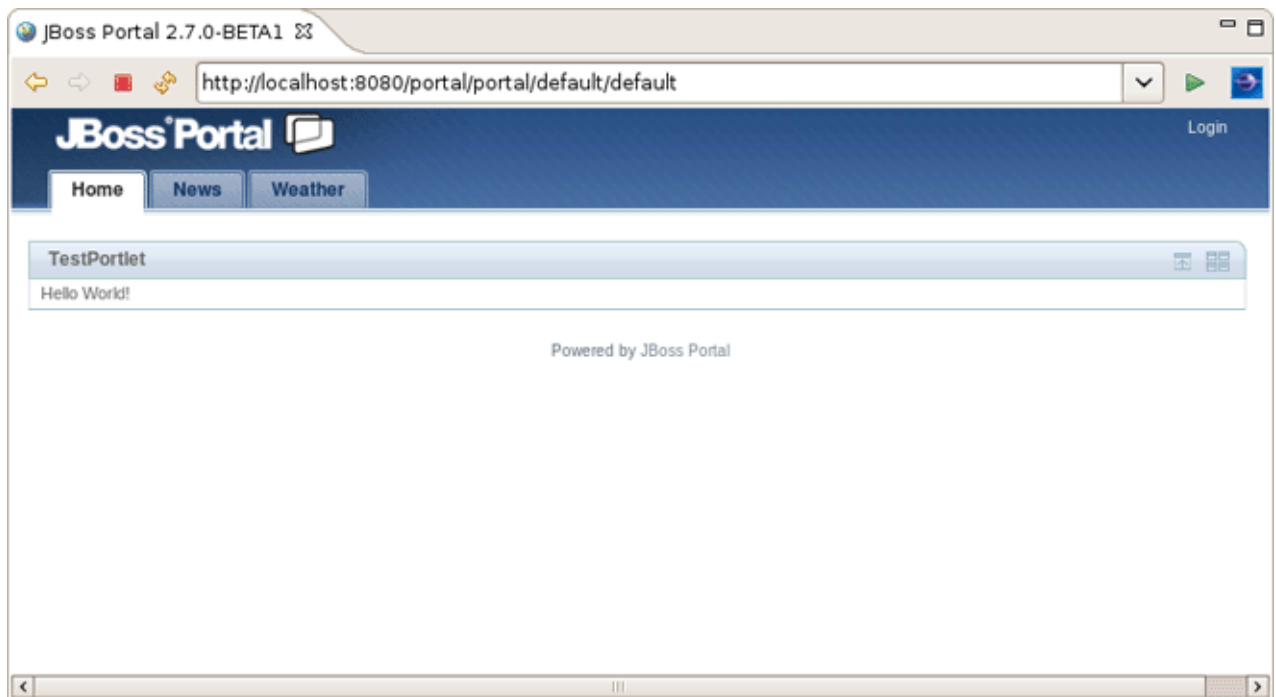
It will deploy the Portlet Web Application and start [JBoss AS](#).



**Tip:**

You should use *http://localhost:8080/portal* URL to see your Portlet in the Browser.

In the Browser the Portlet looks as follows:



**Figure 3.23. Java Portlet in the Browser Window**

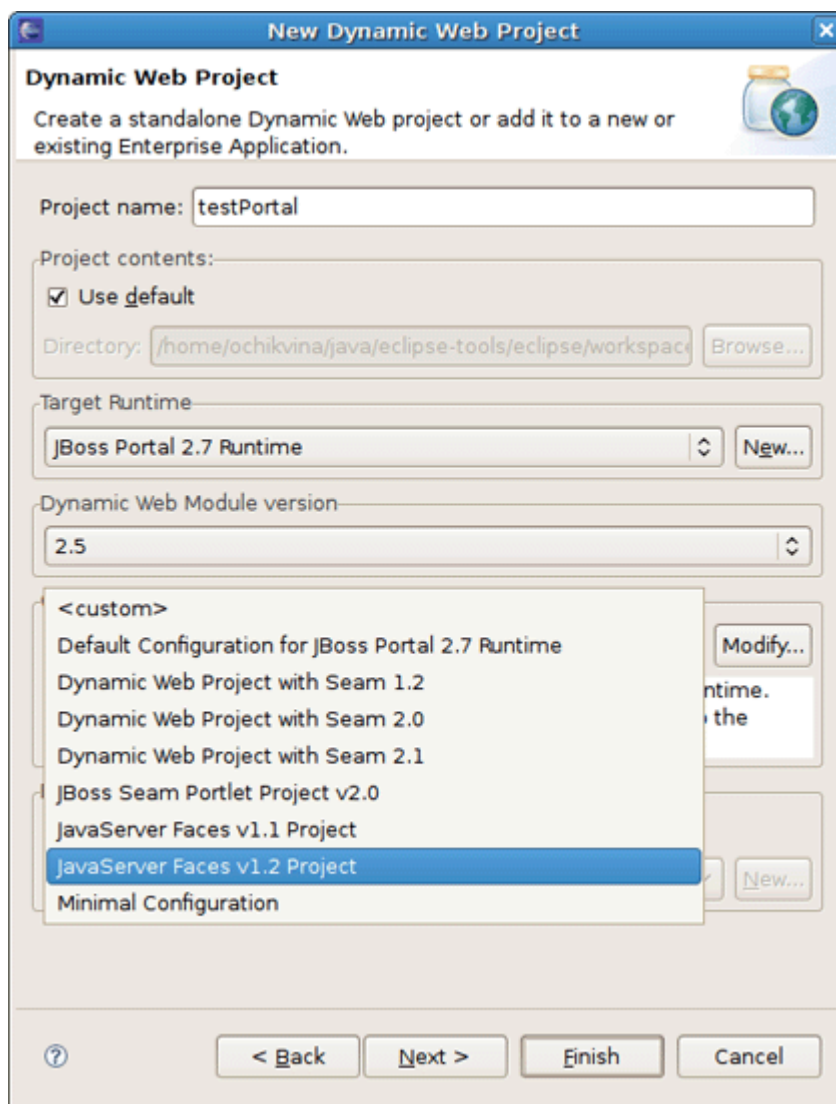
Consequently, here you learnt how to create a Dynamic Web Project, add Java Portlet to it and deploy the project to [JBoss Portal](#).

# Creating JSF Portlet

This chapter will explain how you can configure JSF Portlet within Dynamic Web Project and JSF Project by using the wizards [JBoss Tools](#) provides.

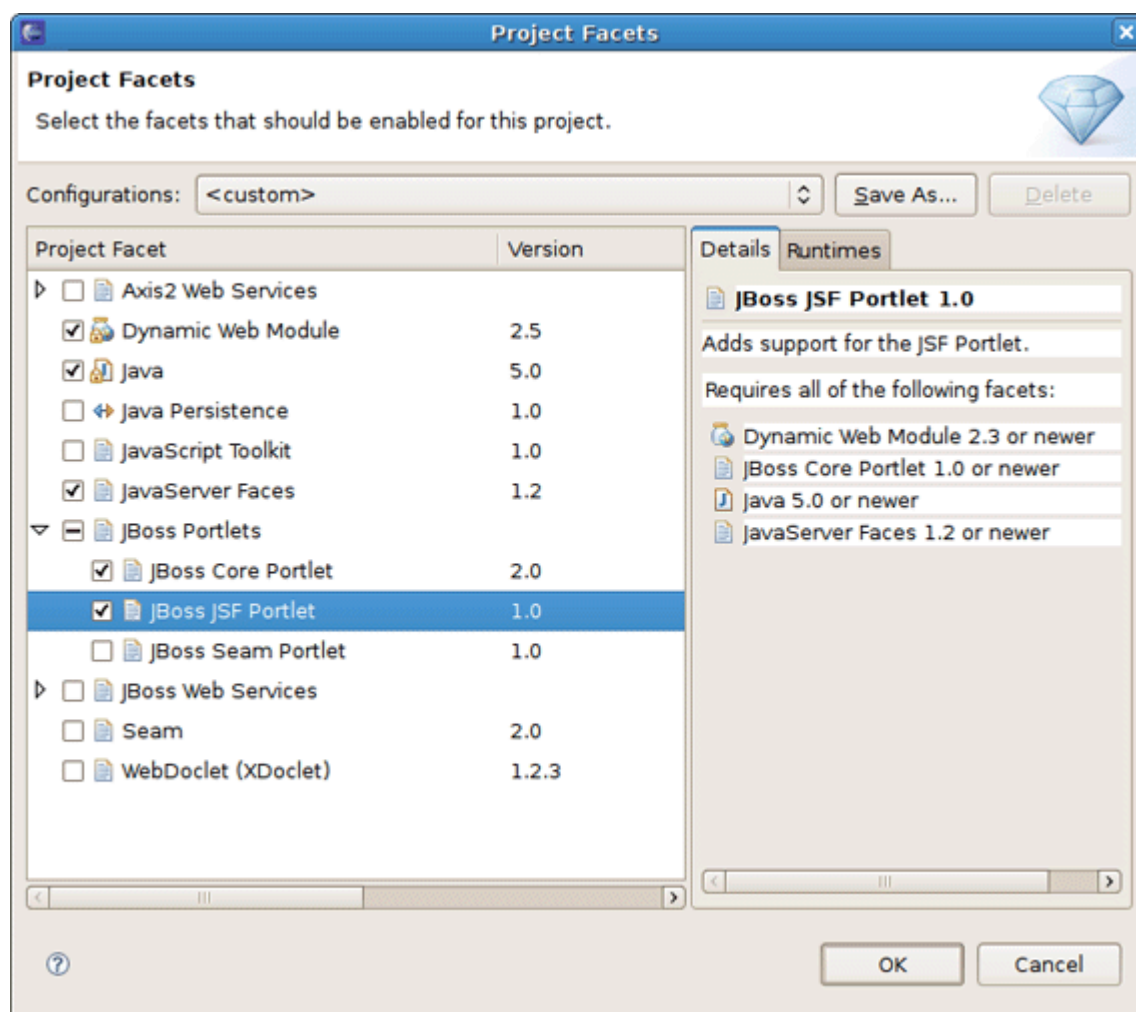
## 4.1. Adding JSF Portlet to Dynamic Web Project

To add JSF Portlet to a Dynamic Web Project, you should set the Configuration to [JavaServer Faces v1.1 Project](#) or [JavaServer Faces v1.2 Project](#) and configure the JSF Portlet Facets in the [New Dynamic Web Project wizard](#) by clicking the [Modify](#) button.



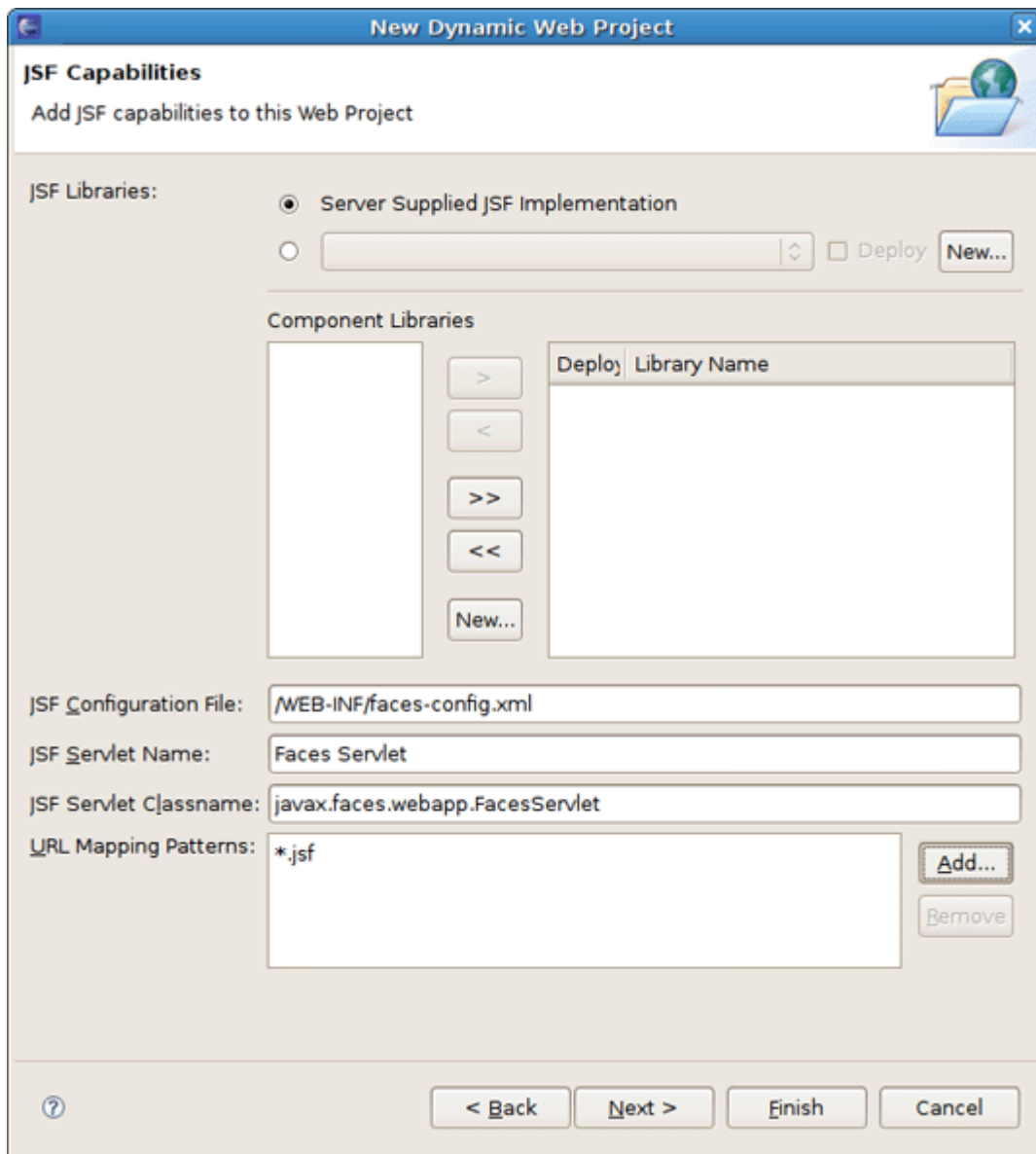
**Figure 4.1. Setting the JSF Configuration**

On the Project Facets dialog you should select [JBoss Core Portlet](#) and [JBoss JSF Portlet](#) check boxes.



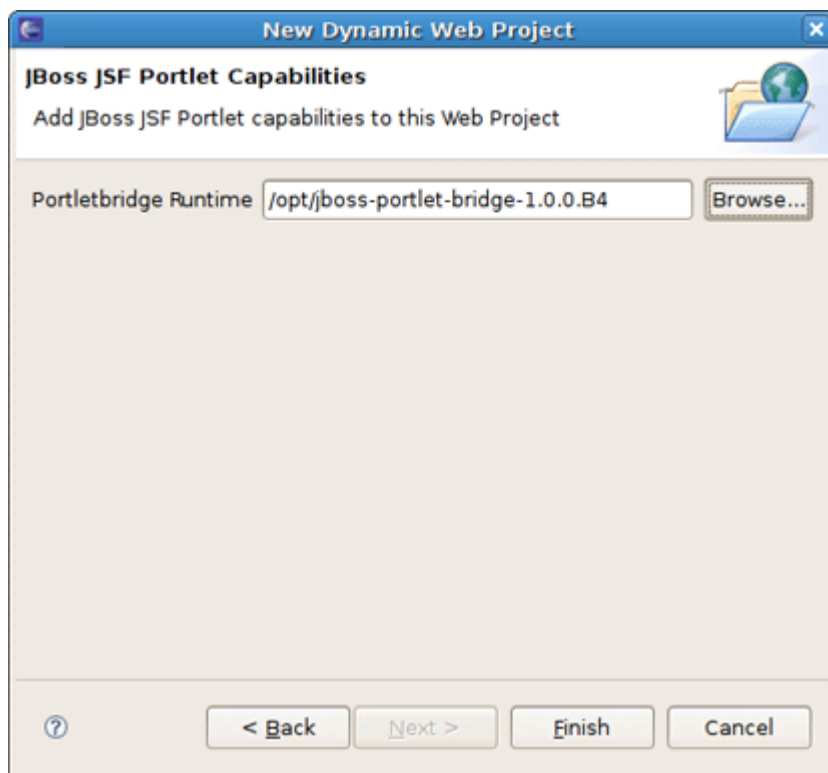
**Figure 4.2. Enabling the Portlet Facets**

Next wizard page is for configuring JSF Capabilities. You can leave everything as it is here.



**Figure 4.3. JSF Capabilities**

To support Portlets in JSF/Seam applications [JBoss Tools](#) works with [JBoss Portlet Bridge](#). Thus on the next page you should add JSF Portlet capabilities by pointing to the Portletbridge Runtime location.



**Figure 4.4. JSF Capabilities**

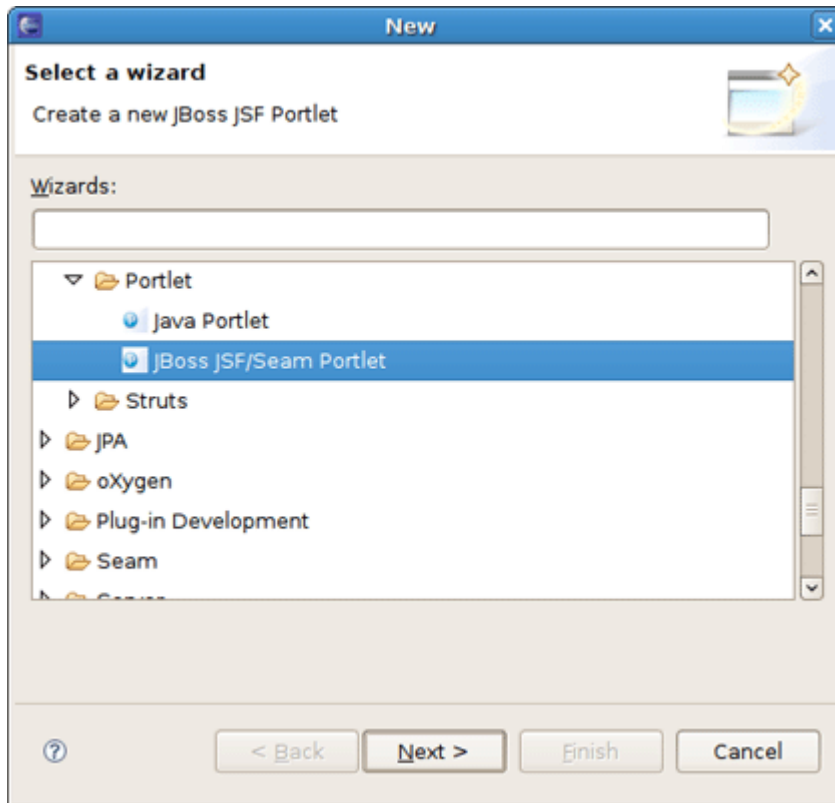


**Tip:**

You can download JBoss Portlet Bridge 1.0.0.B4 from [here](#).

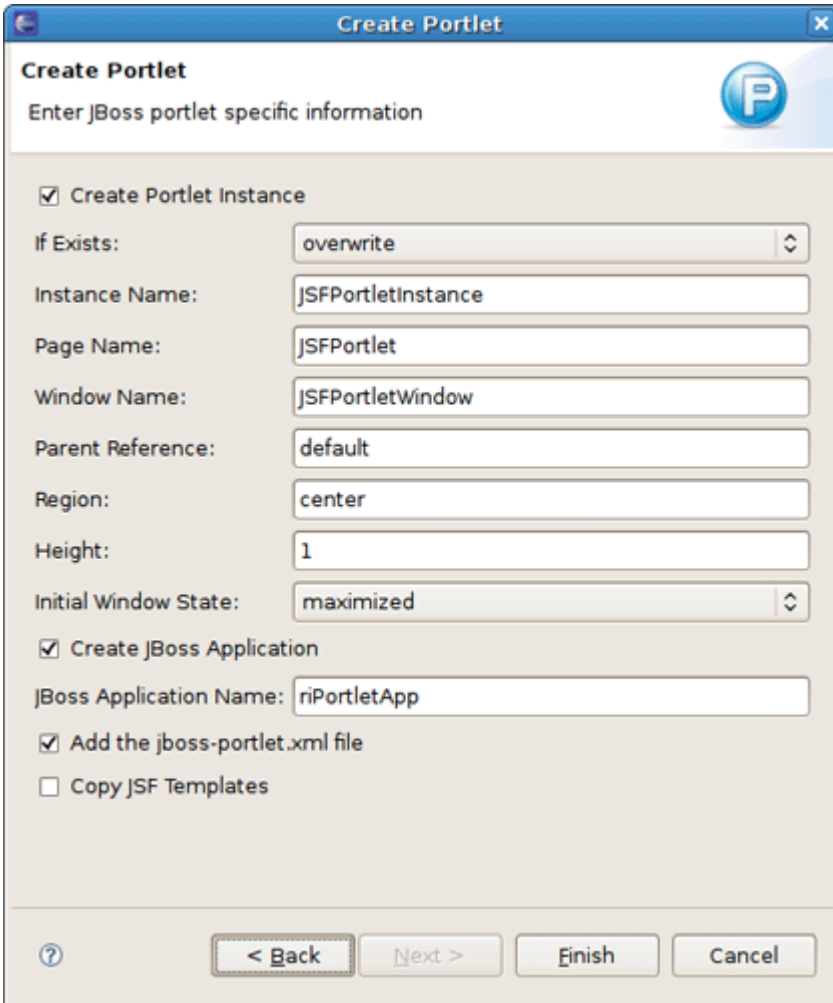
Next click *Finish* to organize the Project.

To add JSF Portlet to generated project you should call the [Create Portlet wizard](#) by navigating to *New > Other > JBoss Tools Web > Portlet > JSF/Seam Portlet*.



**Figure 4.5. Calling New Portlet Wizard**

As you see, the Seam and JSF Portlet wizards are merged into one. We set JSF Configuration for the project, so default values in this wizard will be set as for a JSF portlet.



The image shows a 'Create Portlet' dialog box with a blue title bar and a 'P' icon. The main area is light beige and contains several fields and checkboxes. The 'Create Portlet Instance' checkbox is checked. The 'If Exists:' dropdown is set to 'overwrite'. The 'Instance Name:' field contains 'JSFPortletInstance', 'Page Name:' contains 'JSFPortlet', 'Window Name:' contains 'JSFPortletWindow', 'Parent Reference:' contains 'default', 'Region:' contains 'center', 'Height:' contains '1', and 'Initial Window State:' is set to 'maximized'. The 'Create JBoss Application' checkbox is checked, and the 'JBoss Application Name:' field contains 'riPortletApp'. The 'Add the jboss-portlet.xml file' checkbox is checked, and the 'Copy JSF Templates' checkbox is unchecked. At the bottom, there is a help icon, a '< Back' button, a 'Next >' button, a 'Finish' button, and a 'Cancel' button.

**Create Portlet**

Enter JBoss portlet specific information

☒ Create Portlet Instance

If Exists:

Instance Name:

Page Name:

Window Name:

Parent Reference:

Region:

Height:


Initial Window State:

☒ Create JBoss Application

JBoss Application Name:

☒ Add the jboss-portlet.xml file

☐ Copy JSF Templates



**Figure 4.6. Creating JSF Portlet**

Click [Finish](#) to complete JSF Portlet creation. Now you can deploy the project the same way as it was [described above](#).

In the Browser JSF Portlet looks as follows.



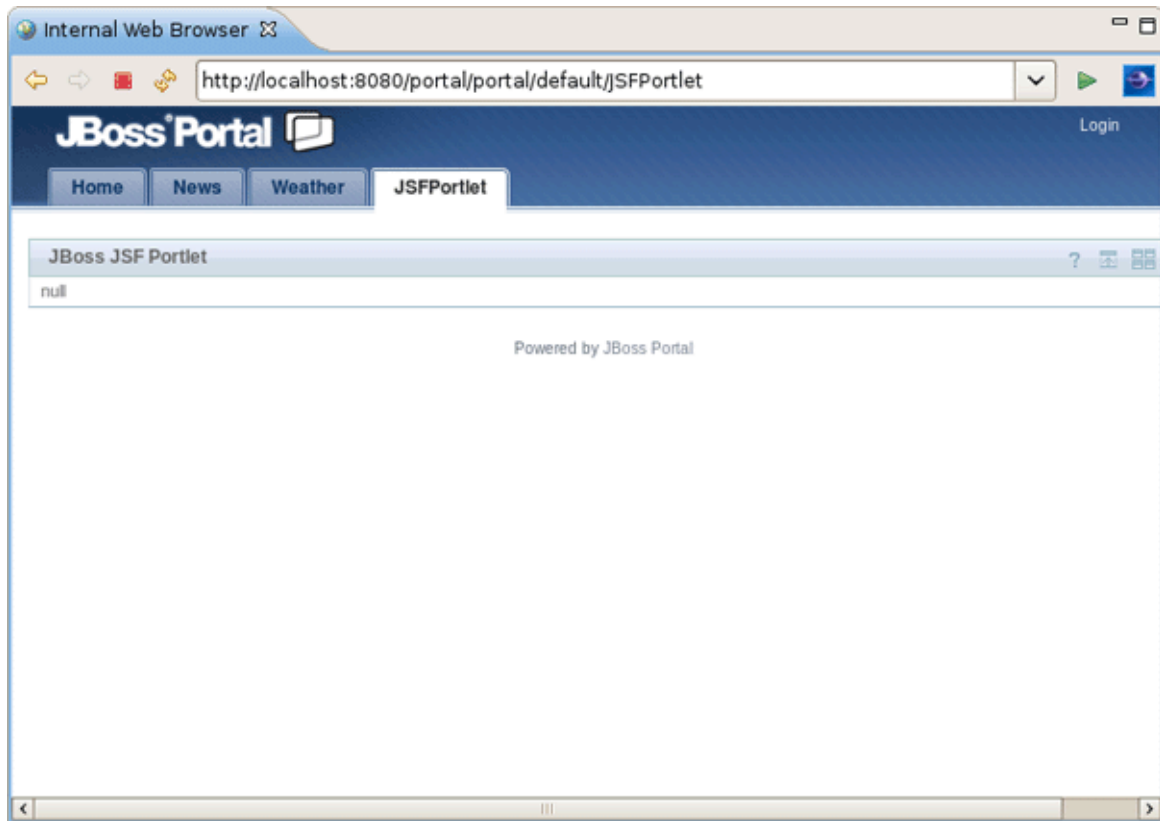
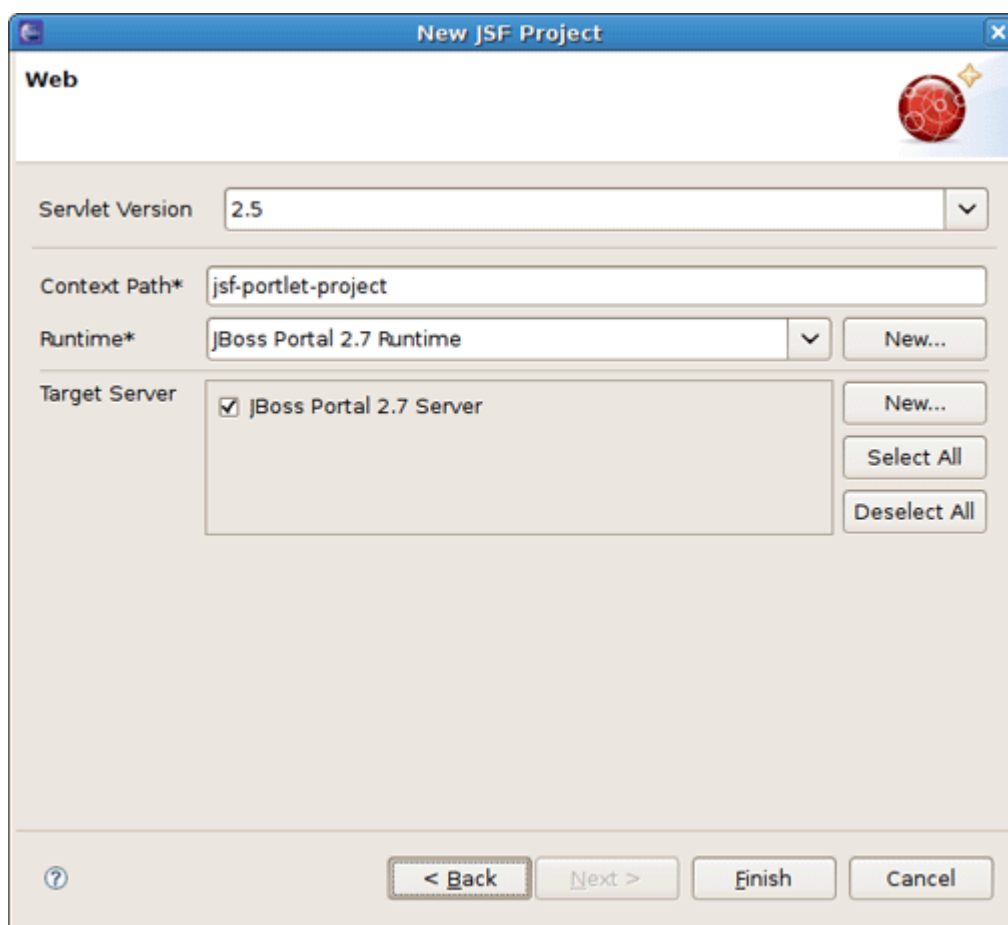


Figure 4.7. JSF Portlet in the Browser

## 4.2. Adding JSF Portlet to JSF Project

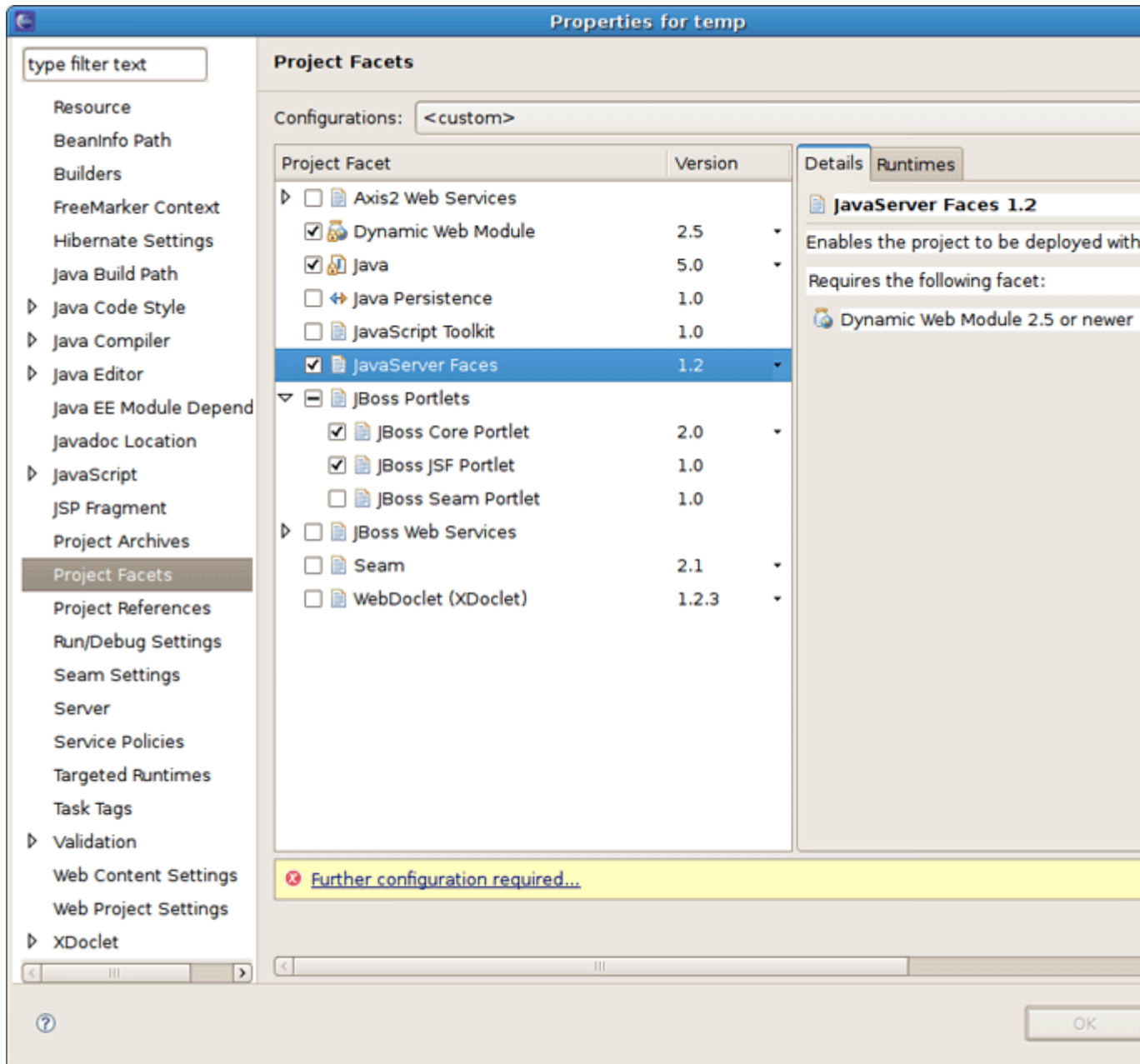
How to organize a JSF Project you can find out in our [JSF Tools Reference Guide](#). Just remember to point Target Runtime to JBoss Portal directory location.



**Figure 4.8. Creating New JSF Project**

Before adding a Portlet to the project you should enable necessary facets for it. Right-click the created project and click [Preferences](#) to open the [Project Preferences](#) screen.

On the [Project Facets](#) page select the [JBoss Core Portlet](#) and [JBoss JSF Portlet](#) checkboxes. And then the screen will ask you to enable [JavaServer Faces](#) facet as well.



**Figure 4.9. Project Facets**

Notice, "[Further configuration required...](#)" warning appears at the bottom of the screen. It means that you should click it to configure JSF and JSF Portlet Capabilities in the project.

**Modify Faceted Project**

**JSF Capabilities**  
Add JSF capabilities to this Web Project

JSF Libraries:

☒ Server Supplied JSF Implementation

☐   

Component Libraries

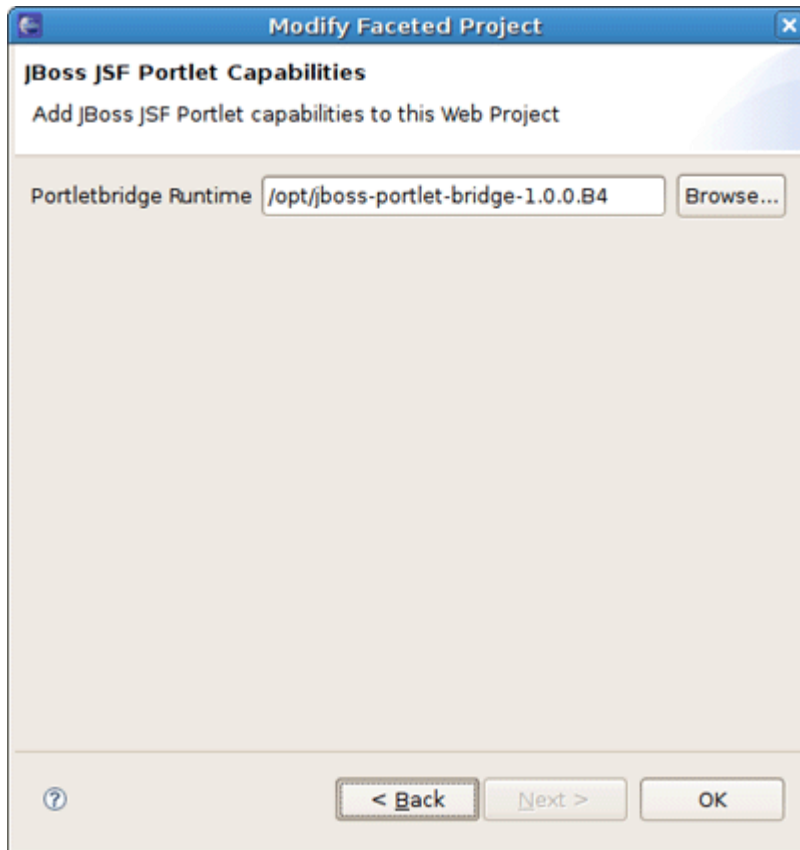
JSF Configuration File:

JSF Servlet Name:

JSF Servlet Classname:

URL Mapping Patterns:

Figure 4.10. JSF Capabilities



**Figure 4.11. Project Facets**

After setting the path to Portletbridge Runtime location, click [OK](#) and then [OK](#) again.

Now you can add JSF Portlet to the generated JSF Project. How to do it we showed in [the previous section \[32\]](#).

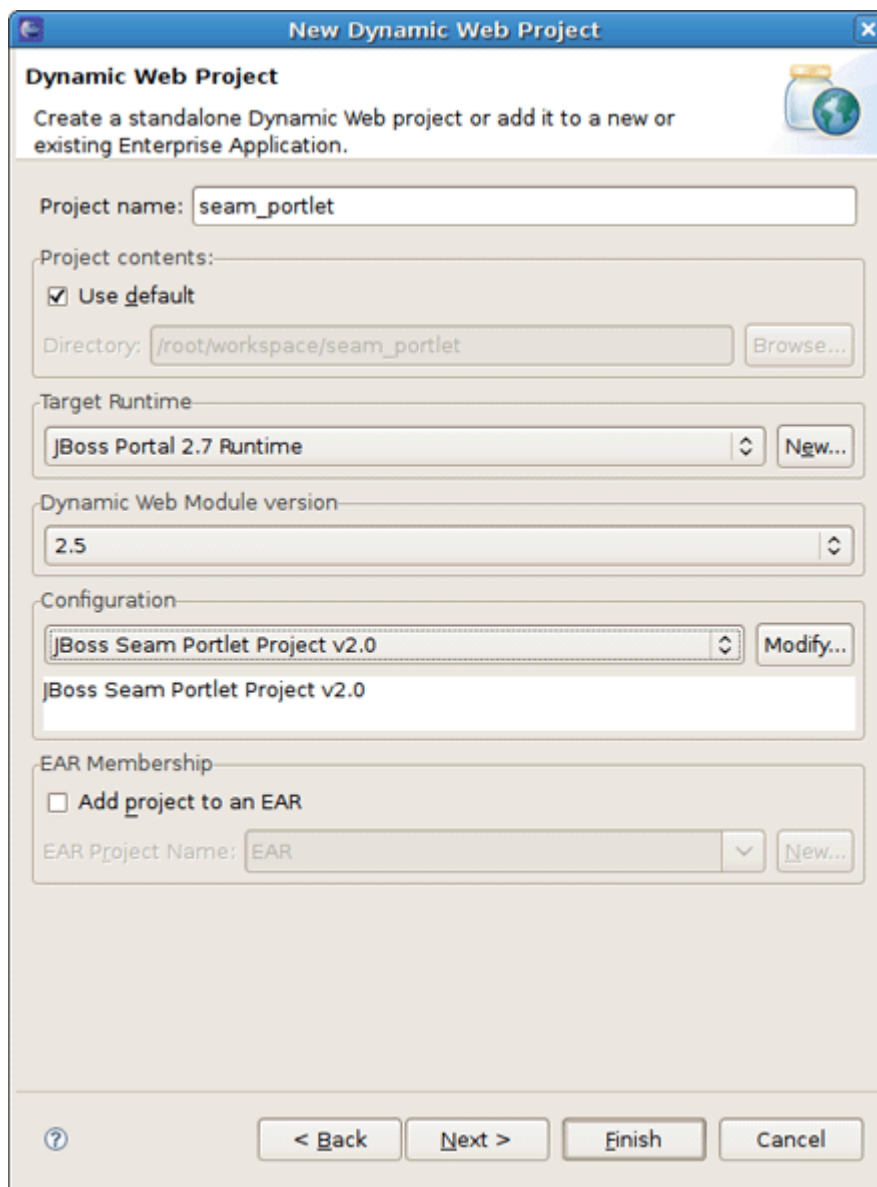
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# Creating Seam Portlet

This chapter covers the steps on how to configure Seam Portlet within Dynamic Web Project and Seam Project by using the wizards [JBoss Tools](#) provides.

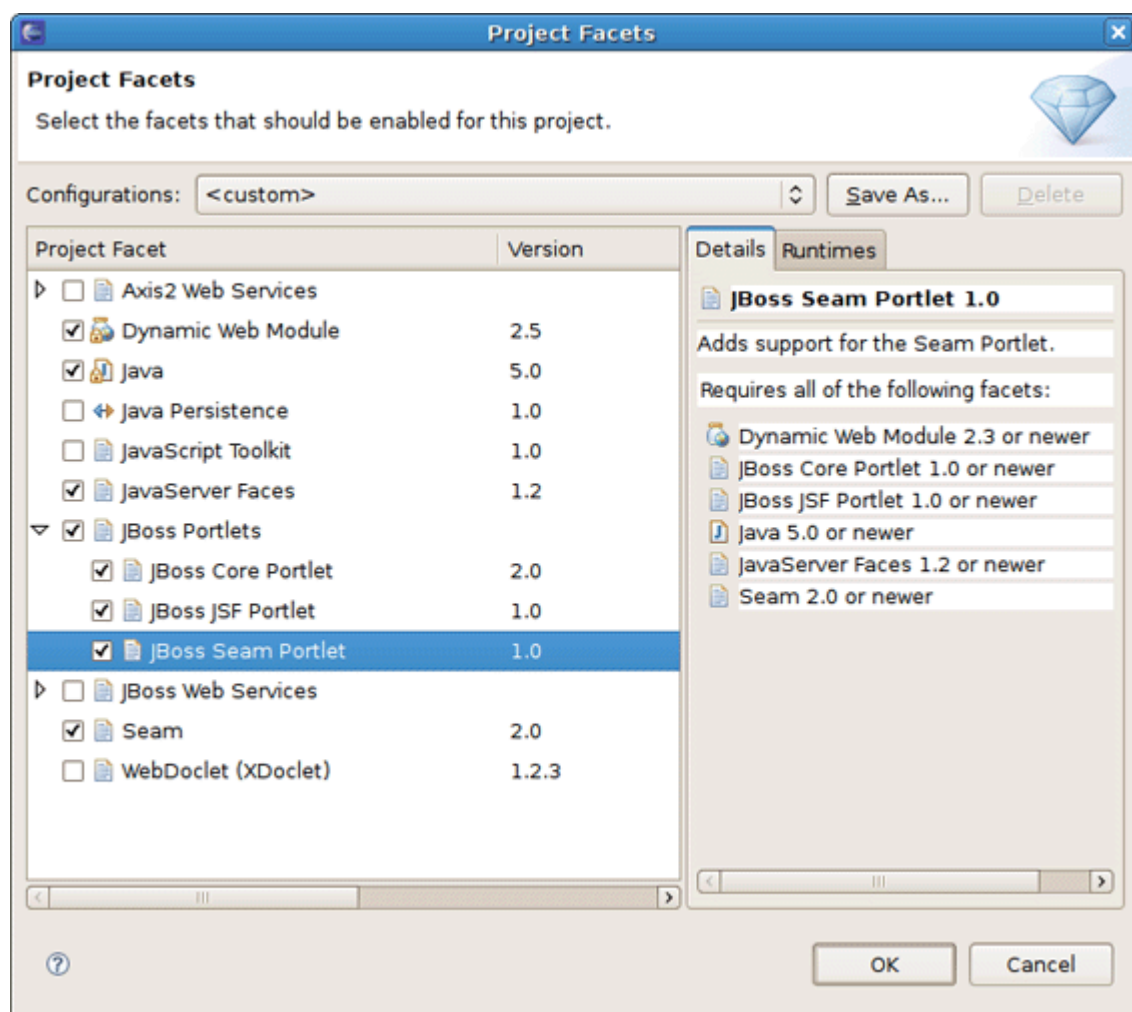
## 5.1. Adding Seam Portlet to Dynamic Web Project

To add Seam Portlet to a Dynamic Web Project first you should organize New Dynamic Web Project with the Configuration setting to [JBoss Seam Portlet Project v2.0](#).



**Figure 5.1. Calling New Portlet Wizard**

It will add all needed facets to your project. By clicking the [Modify](#) button you can observe the chosen configuration of facets as well as modify it. As you can see, all JBoss Portlets are checked.

**Figure 5.2. Project Facets**

Next wizard pages are for adjusting the Project Web Modules and JSF Configuration. They include default values, so you can skip them by pressing [Next](#).

On the [Seam Facet](#) page [set Connection Profile](#) and hit [Next](#).



The screenshot shows the 'Seam Facet' configuration window within the 'New Dynamic Web Project' wizard. The window has a title bar 'New Dynamic Web Project' and a close button. Below the title bar is the 'Seam Facet' section with the subtitle 'Configure Seam Facet Settings' and a small icon of a document with a star. The configuration is divided into three main sections: 'General', 'Database', and 'Code Generation'. In the 'General' section, 'Seam Runtime' is set to 'Seam 2.0.FP' with an 'Add...' button, and 'Deploy as' has radio buttons for 'WAR' (selected) and 'EAR'. The 'Database' section includes 'Database Type' set to 'HSQL', 'Connection profile' set to 'New HSQL' with 'Edit...' and 'New...' buttons, and empty text boxes for 'Database Schema Name' and 'Database Catalog Name'. There are checkboxes for 'DB Tables already exists in database' and 'Recreate database tables and data on deploy', both currently unchecked. The 'Code Generation' section has three text boxes: 'Session Bean Package Name' (org.domain.seam\_portlet.session), 'Entity Bean Package Name' (org.domain.seam\_portlet.entity), and 'Test Package Name' (org.domain.seam\_portlet.test). At the bottom, there is a help icon, and navigation buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

**Seam Facet**  
Configure Seam Facet Settings

**General**

Seam Runtime: Seam 2.0.FP Add...

Deploy as: ☒ WAR ☐ EAR

**Database**

Database Type: HSQL

Connection profile: New HSQL Edit... New...

Database Schema Name:

Database Catalog Name:

DB Tables already exists in database: ☐

Recreate database tables and data on deploy: ☐

**Code Generation**

Session Bean Package Name: org.domain.seam\_portlet.session

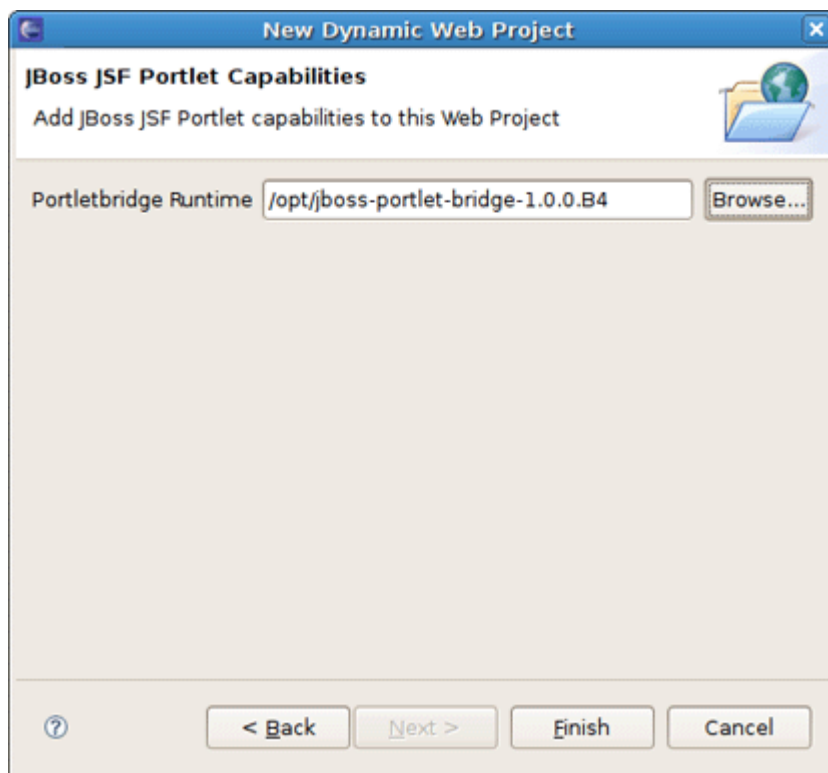
Entity Bean Package Name: org.domain.seam\_portlet.entity

Test Package Name: org.domain.seam\_portlet.test

? < Back Next > Finish Cancel

**Figure 5.3. Seam Facet Settings**

Last wizard page will prompt you to set the path to Portletbridge Runtime location.



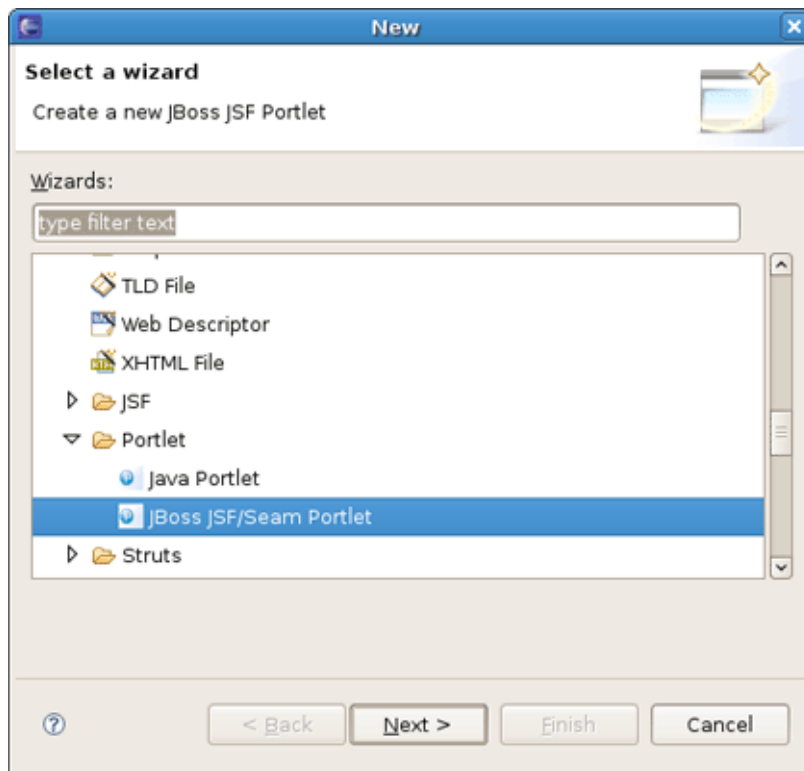
**Figure 5.4. Setting the Portletbridge Runtime**



**Tip:**

Thus you should have JBoss Portlet Bridge downloaded and extracted somewhere on your hard drive. You can download JBoss Portlet Bridge 1.0.0.B4 from [here](#).

Now, to add Seam Portlet to the project you should follow to [New > Other > JBoss Tools Web > Portlet > JSF/Seam Portlet](#). This will call the wizard for creating JSF/Seam Portlets.



**Figure 5.5. Calling the Create Portlet Wizard**

As we set Seam Configuration for the Dynamic Web Project, the wizard puts the values as for Seam Portlet.

**Create Portlet**

Enter portlet deployment descriptor specific information.

Name:

Display name:

Title:

Description:

Portlet Modes

☒ View ☐ Edit ☐ Help

Initialization Parameters:

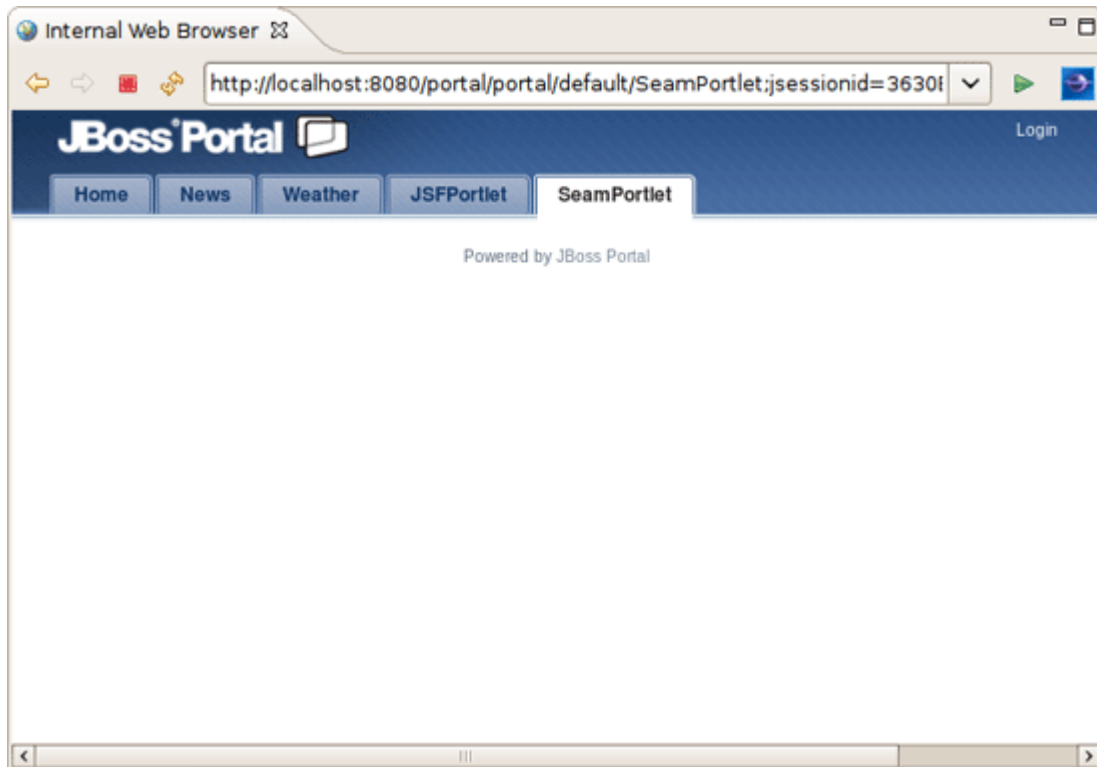
Name	Value	Description
javax.portlet.faces.d	/home.xhtml	

Add... Edit... Remove

? < Back Next > Finish Cancel

**Figure 5.6. Creating Seam Portlet**

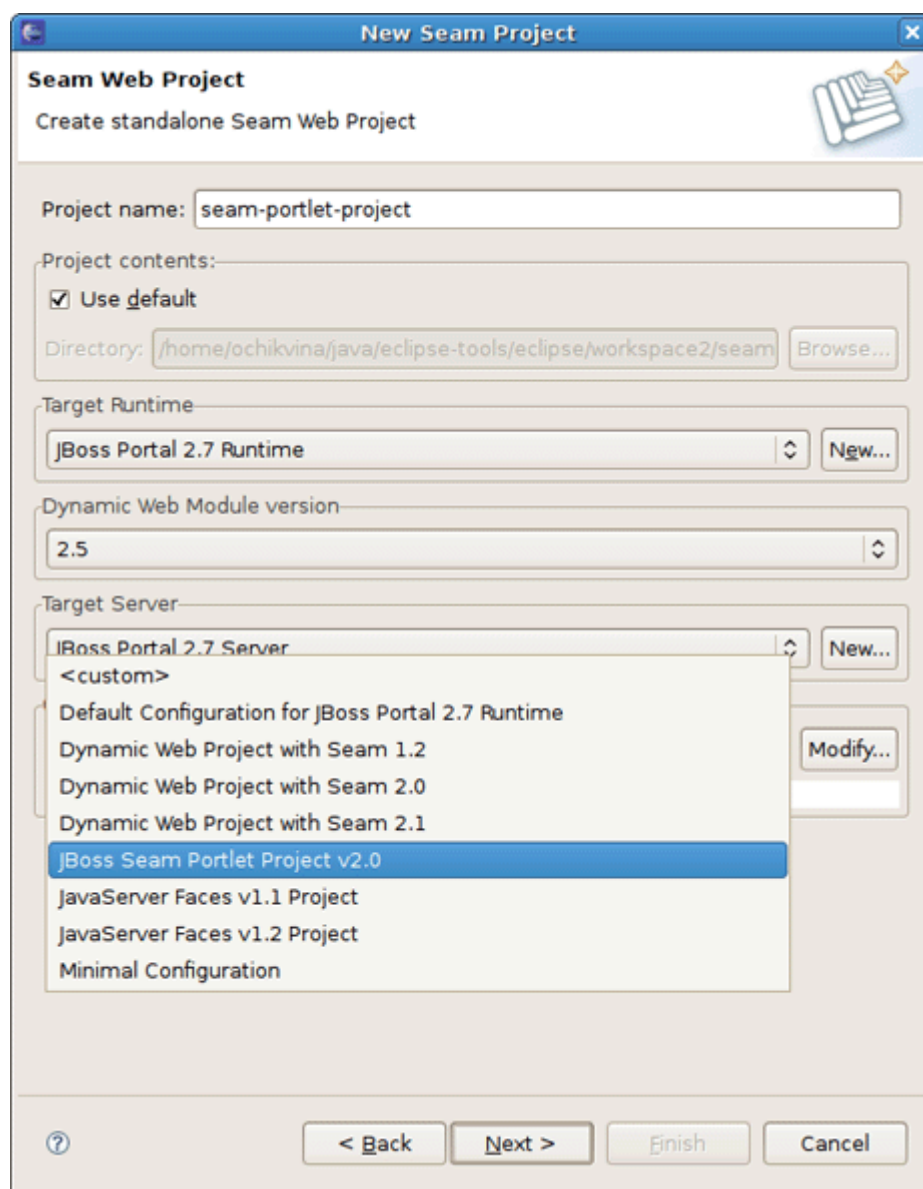
After creating the Seam Portlet, you should [deploy the project to JBoss Portal](#) and start the Server. In a Browser you'll see the following:



**Figure 5.7. Seam Portlet in the Browser**

## 5.2. Adding Seam Portlet to Seam Project

First start a Seam Project by following to [New > Other > Seam > Seam Web Project](#). On the first wizard page specify JBoss Portal directory location as [Target Runtime](#) and [JBoss Seam Portlet Project v2.0](#) as [Configuration](#).



**Figure 5.8. Project Facets**

Next steps will be the same as we did for the Dynamic Web Project in the [Adding Seam Portlet to Dynamic Web Project](#) section.

# Adding Portlets to non-WTP Projects

Starting from [JBoss Tools 3.0.0.Beta1](#) version the JBoss Portlet wizards no longer require a WTP project to be able to create Portlets.



## Note:

Please note, if the project does not have the proper portlet API jar's, the generated classes will have compile errors.

In conclusion, with this document you've learnt how to get started with [JBoss Portal](#) using [JBoss Tools](#) suite of Eclipse plugins. The above chapters walked you through the steps on how to organize a web project with portlets which includes a sample staff and deploy it onto the [JBoss Portal](#).

If you still have questions or suggestions you are always welcome on our [Forum](#). Your feedback will be very much appreciated.

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