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Extending WebCenter Spaces (11.1.1.2.0 and 11.1.1.3.0)

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Executive Overview

Oracle WebCenter Spaces is a pre-built, pre-integrated, and highly customizable enterprise application that provides new facilities to enable social communities within the enterprise. As you begin using WebCenter Spaces, you may find that you want to customize the navigational controls, look and feel, and other aspects of this application. For example, you might want to provide a customized resource catalog with content that better reflects your organization or a departmental requirement.

This document outlines various extensibility and customization options for WebCenter Spaces (11.1.1.2.0 & 11.1.1.3.0) and describes how to re-package and deploy a customized WebCenter Spaces application.

Introduction

To customize your WebCenter Spaces environment, you can:

- **Deploy your own skins** – Build and deploy your own skins to brand your WebCenter Spaces environment with the look and feel you choose.
- **Customize the resource catalog** - Add new task flows to the WebCenter Spaces resource catalog, filter out content, and reorganize the folder structure to make it easy for your users to find the content they need.
- **Add custom task flows** - Develop specialized task flows in JDeveloper and make them available to your WebCenter Spaces users.
- **Deploy new page styles** – Use WebCenter Spaces' own pre-built page styles, such as three-column or navigation, or create your own. You decide which page styles to make available to users.
- **Change the public welcome page (and login area)** - Modify the default content, or replace the entire page with content specific to your installation, or change the default login form to a login link.

- **Create and deploy new site templates** – Create and deploy new site templates for WebCenter Spaces page. Alternatively, customize the out-of-box site templates to suite your installation.
- **Customize user profile attributes** – Customize the default user attributes derived from the user profile store.
- **Exclude default group space pages** – Permanently remove unwanted default pages from a group space.
- **Rename the Personal Space tab** - Choose a different name for *Personal Spaces*, the private work areas in WebCenter Spaces.
- **Filter languages** – Reduce the range of locales/languages available in your application.
- **Configure group space dashboards** – When users login, always display the same group spaces in a specific order.
- **Deploying custom code** – Develop custom code in JDeveloper and make it available in WebCenter Spaces.

WebCenter Spaces Customization Download

To extend or customize WebCenter Spaces 11.1.1.2.0 or 11.1.1.3.0 you must first download the appropriate zip file from Oracle Technology Network:

- WebCenter Spaces 11.1.1.2.0 - **extendwebcenterspaces.zip**
<http://download.oracle.com/otndocs/tech/webcenter/files/extendwebcenterspaces.zip>
- WebCenter Spaces 11.1.1.3.0 – **extendwebcenterspaces_ps2.zip**
http://download.oracle.com/otndocs/tech/webcenter/files/extendwebcenterspaces_ps2.zip

This download includes a customizable WebCenter Spaces application, some sample customizations, and other resources you might need to support your extensions. This whitepaper makes direct reference to the .ZIP file and its content.

The zip file contains the following files and folders:

ZIP CONTENT	DESCRIPTION
\ExtendWebCenterSpaces	
ExtendWebcenterSpaces.jws	Customizable application workspace for WebCenter Spaces.
\CustomLandingPage	Custom landing page project with a sample custom <code>Landing.jspx</code> .
\CustomLanguageAdditions	Custom language project containing a sample language list (<code>supported-languages.xml</code>).
\CustomPagesAndGroupSpacesListTaskflows	Project containing two custom task flows: one that displays a list of pages in a bulleted list and another that displays a thumbnail view of 'my' group spaces.
\CustomPageStyle	Custom page style project containing one custom page style.
\CustomPersistentSpacesTabs	Project containing a custom class that arranges group space tabs (<code>CustomPhaseListener.java</code>).
\CustomProfileAttribute	Custom profile project containing a custom profile implementation class (<code>CustomProfileImp.java</code>) with associated images, and <code>people-profile-config.xml</code> .
\CustomResourceCatalog	Custom resource catalog project with sample catalogs.
\CustomRuleBasedResources	Project containing a custom class that determines which skin to use based on the 'organization' to which the current user belongs (<code>UserSkinBean.java</code>).
\CustomSiteTemplate	Custom site template project containing a sample custom site template.
\CustomSkin	Custom skin project containing a sample custom skin and <code>trinidad-skins.xml</code> .
\CustomWebCenterSpacesWAR	A customizable WebCenter Spaces project that generates <code>custom.webcenter.spaces.war</code> . By default, this custom .WAR file includes customized jars from <i>all</i> the customization projects listed above (skins, page styles, resource catalogs, and so on) but you can exclude customizations that you do not require by editing the deployment profile in this project.
\SourceFiles	Out-of-the-box content for you to edit/customize.
\catalog	Default resource catalogs (<code>PersonalSpaceCatalog.xml</code> and <code>DefaultGroupSpaceCatalog.xml</code>)
\langs	Default resource bundles for all languages

\mdsDocs	Template bindings for site template components used by the CustomSiteTemplate project
\page_styles	Default page styles
\public_html	Public JSPs, such as the default landing page (.jsp)
\schemas	XSDs for <code>templates.xml</code>
\shell	Deprecated.
\skins	Default skins (.css and trinidad-skins.xml)
\adf	Required JDeveloper directory
\resourcebundles	Required JDeveloper directory
\src	Required JDeveloper directory

Deploying and Undeploying WebCenter Spaces Customizations

This section describes:

- Downloading a customizable WebCenter Spaces workspace and modifying the deployment profile
- Building and deploying a customized WebCenter Spaces .WAR
- Reverting to a previous custom WebCenter Spaces deployment version
- Removing a custom WebCenter Spaces deployment

Downloading and Modifying a Customizable WebCenter Spaces Workspace

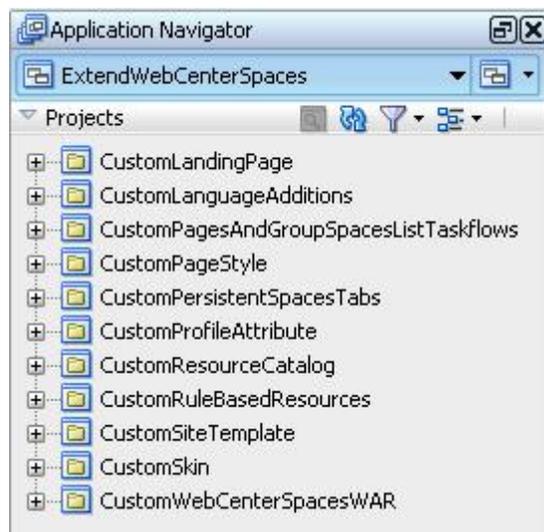
This section describes how to customize and extend an out-of-the-box WebCenter Spaces installation, which includes downloading a customizable version of the WebCenter Spaces application, opening the sample workspace in JDeveloper, reviewing the sample customizations, and modifying the deployment profile for associated with the customizable WebCenter Spaces .WAR file.

You only need to download the ZIP file once. If you want to review *all* the sample customizations provided with this download you simply build a custom .WAR with the default deployment profile. Alternatively, you can exclude customization types by editing the default deployment profile. You can rebuild the customized WebCenter Spaces .WAR as many times as you like.

Once you have finished with the samples you can add you own customizations and configure the customized WebCenter Spaces .WAR as described below:

1. (First time only) Download a customizable version of WebCenter Spaces:
 - a) Ensure WebCenter Spaces is installed, configured, and working as expected.
 - b) Download and install Oracle JDeveloper 11g and the WebCenter Framework and Services Design Time Extensions ((11.1.1.2.0 or 11.1.1.3.0).
 - c) Download the appropriate zip file from Oracle Technology Network and unzip the content locally:
 - o WebCenter Spaces 11.1.1.2.0 - extendwebcenterspaces.zip
<http://download.oracle.com/otndocs/tech/webcenter/files/extendwebcenterspaces.zip>
 - o WebCenter Spaces 11.1.1.3.0 – extendwebcenterspaces_ps2.zip
http://download.oracle.com/otndocs/tech/webcenter/files/extendwebcenterspaces_ps2.zip
2. Open the customizable WebCenter Spaces workspace in JDeveloper. Navigate to the location where you extracted the .ZIP and select the file **ExtendWebCenterSpaces.jws**.

The following projects display in the Application Navigator:



- **CustomWebCenterSpacesWAR** – generates a customized .WAR file for WebCenter Spaces

- **Ten customizable projects:**
 - CustomLandingPage - Custom landing page project with a sample custom Landing.jspx.
 - CustomLanguageAdditions – Project containing a sample supported-languages.xml file listing supported locales/languages.
 - CustomPagesAndGroupSpacesListTaskflows - Project containing two custom task flows: one that displays a list of pages in a bulleted list and another that displays a thumbnail view of ‘my’ group spaces.
 - CustomPageStyles - Custom page style project containing two custom page styles and a customized page style list.
 - CustomPersistentSpacesTabs - Custom project containing a custom class that arranges group space tabs (CustomPhaseListener.java).
 - CustomProfileAttribute - Custom profile project containing a custom profile implementation class (CustomProfileImp.java) with associated images, and people-profile-config.xml
 - CustomResourceCatalog - Custom resource catalog project with sample customized catalogs.
 - CustomRuleBasedResources - Project containing a custom class that determines which skin to use based on the ‘organization’ to which the current user belongs (UserSkinBean.java).
 - CustomSiteTemplate - Custom site template project containing a sample custom site template.
 - CustomSkin - Custom skin project containing a sample custom skin and trinidad-skins.xml.

3. (Optional) Modify the deployment profile.

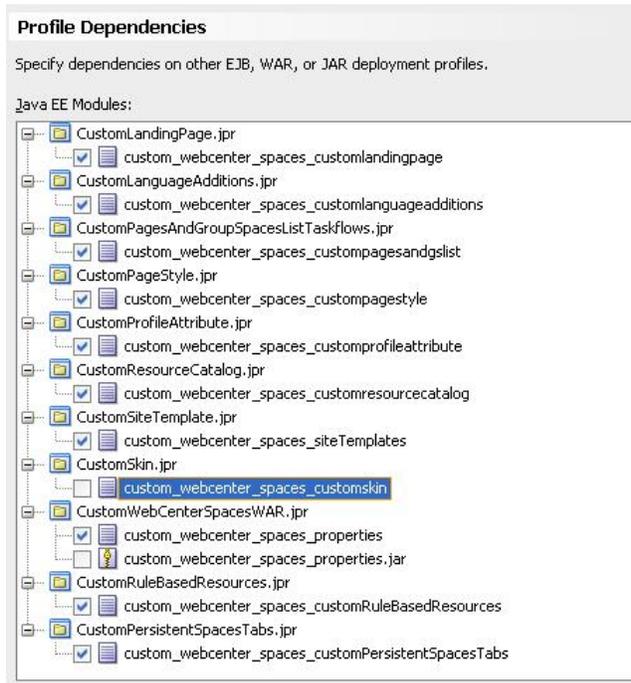
By default, the customized WebCenter Spaces .WAR contains all seven custom .JAR files—one for each customizable project. If you want to deploy and review *all* the samples provided with the download or have provided customizations of your own in all seven areas then there is no need to edit the deployment profile.

Alternatively, select only the customization projects you want to include in the .WAR:

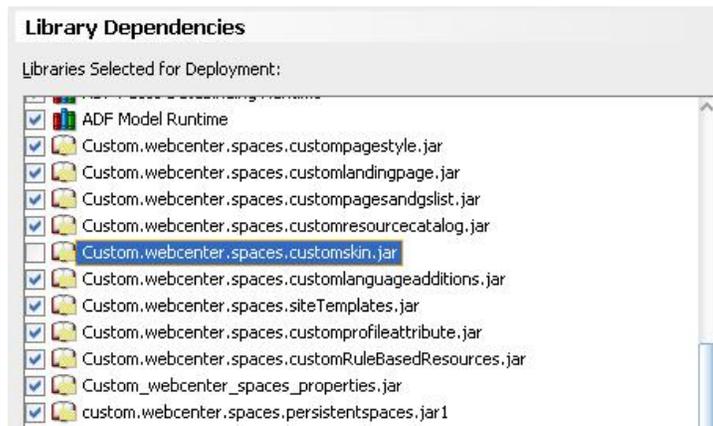
- a. In the Application Navigator, right-click the **CustomWebCenterSpacesWAR** project and choose **Project Properties**.
- b. Select **Deployment**, highlight **custom_webcenter_spaces_war**, and then click **Edit**.

- c. Select **Profile Dependencies**.
- d. Select the **Java EE Modules** you want to deploy.

For example, deselect `custom_webcenter_spaces_customskin` to exclude skin customizations.



- e. Click **OK**.
- f. Select **Library Dependencies**, and exclude the JARs, associated with unwanted Java EE Modules, from the library dependencies as they are not required in the customized WebCenter Spaces .WAR. For example:



The next section describes how to build and deploy the `custom.webcenter.spaces.war` on a WebCenter Spaces managed server.

Building and Deploying a Customized WebCenter Spaces .WAR

After setting up a deployment profile for your `custom_webcenter_spaces_war`, you can build and deploy the customized WebCenter Spaces .WAR.

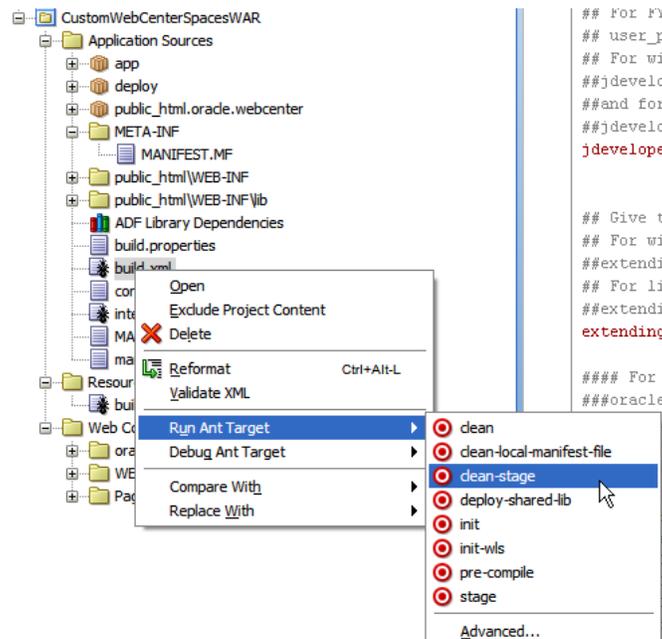
1. Set build properties for `custom_webcenter_spaces_war` in `config.properties`:
 - a. Open `config.properties`, available at:
 - o `<Unzip_Directory>\ExtendWebCenterSpaces\CustomWebCenterSpacesWAR\config.properties`
 - o Or through JDeveloper, in **CustomWebCenterSpacesWAR** project > **Application Sources**
 - b. Enter details relating to your WebCenter Spaces installation as follows:

Configuration Property	Description
<code>jdeveloper.install.home.directory</code>	Base directory where JDeveloper is installed
<code>extending.spaces.home.dir</code>	Path to the ExtendWebCenterSpaces project
<code>oracle.jdeveloper.ojdeploy.path</code>	Path to <code>ojdeploy.exe</code>
<code>wls.port</code>	Port number on which the WLS Administration Console is running
<code>wls.host</code>	WebCenter host machine on which the <code>custom.webcenter.spaces.jar</code> shared library is to be deployed
<code>wls.userkey</code>	Name and location of the file storing administrator passwords. <code>config.properties</code> describes how to generate the file using WLST. The file can be copied to any accessible location.
<code>wls.userconfig</code>	Name and location of the file storing administrator user details. <code>config.properties</code> describes how to generate the file using WLST. The file can be copied to any accessible location.

wls.target	Targets on which the custom.webcenter.spaces.war file is to be deployed.
wls.webcenter.app.target	Targets on which the webcenter.ear file is to be deployed.
webcenter.app.name	Name of the WebCenter Spaces application.
restart.implementation.version.suffix	Controls incremental implementation version numbers.

The `config.properties` file describes each property in more detail and offers examples. The defaults provided are only samples and must be replaced with your own, installation-specific values.

2. Build your customized WebCenter Spaces .WAR:
 - a. In JDeveloper, right-click `build.xml`, located in **CustomWebCenterSpacesWAR** project > **Application Sources** folder.
 - b. Choose **Run Ant Target > clean-stage**.



This generates a new customized version of the WebCenter Spaces .WAR. The implementation version number associated with the new .WAR is saved to `<UnzipDir>/ExtendWebCenterSpaces/CustomWebCenterSpacesWAR/META-INF/MANIFEST.MF`.

3. Deploy the customized WebCenter Spaces .WAR:
 - a. In JDeveloper, right-click `build.xml`, located in **CustomWebCenterSpacesWAR** project > **Application Sources** folder.
 - b. Choose **Run Ant Target > deploy-shared-lib**.

A new version of the shared library is deployed. To verify the new deployment, login to the WLS Administration Console, navigate to **Deployments> custom.webcenter.spaces>Overview**, and check the implementation version displayed.

If the latest version is not active, refer to the section [Troubleshooting Deployment](#) section below.

Reverting to a Previous Version

If there is a problem with your latest customized version of WebCenter Spaces or you want to revert to a previous version for some reason, you can undeploy (remove) the current version and revert to the previous version, using the WLS Administration Console.

Before undeploying the latest WebCenter Spaces version, you must shut down the managed server on which WebCenter Spaces is running. Once you have removed the latest version, you can restart the managed server.

You can remove unwanted shared library versions using the WLS Administration Console too. If you go through several “change-build-deploy-test” iterations, each incremental version is retained by default. If you want to clean up or delete some of these previous versions it is OK to do so since WebCenter Spaces only uses the latest shared library version.

Note: Oracle recommends that you do not delete the original `custom.webcenter.spaces` shared library (version 11.1.1) as this will enable you to revert to the out-the-box version if necessary.

Troubleshooting Deployment

- **Changes are not available after deployment even though deployment successful.**

WebCenter Spaces always uses the latest shared library version. Check that the implementation version in `<UnzipDir>/ExtendWebCenterSpaces/CustomWebCenterSpacesWAR/META-INF/MANIFEST.MF` matches the version displayed in the WLS Administration Console (**Deployments> custom.webcenter.spaces>Overview**)

- **“Security: 090219” error displays:**

```
weblogic.security.internal.encryption.EncryptionServiceException:
weblogic.security.internal.encryption.EncryptionServiceException:
weblogic.security.internal.encryption.EncryptionServiceException:
[Security:090219]Error decrypting Secret Key
com.rsa.jsafe.JSAFE_InputException: Invalid input length for decryption.
Should be a multiple of the block size - 8.
```

Check that `wls.userconfig` and `wls.userkey` are both set correctly in the `config.properties` file, and verify that both security files specified are accessible.

- **“DeployerException: Task 9 failed” displays:**

```
weblogic.Deployer$DeployerException:
weblogic.deploy.api.tools.deployer.DeployerException: Task 9 failed:
[Deployer:149117]deploy library custom.webcenter.spaces
[LibSpecVersion=11.1.1.2,LibImplVersion=11.1.1.2.5] on
AdminServer,WLS_Spaces.
```

This error occurs if the implementation version of the new deployment and the existing deployment are the same. Use the WLS Administration Console (**Deployments > custom.webcenter.spaces > Overview**) to verify the current implementation version and then change the `restart.implementation.version.suffix` property in `config.properties` to this value. When you rebuild and redeploy WebCenter Spaces, the implementation version should increment by ‘1’.

- **“java.lang.IllegalArgumentException” displays**

Restart the managed server on which WebCenter Spaces is deployed.

- **Deployment hangs:**

If you encounter issues during the deployment phase (**Run Ant Target > deploy-shared-lib**) and the process hangs, end/kill the Ant process from inside JDeveloper, and then restart the Administration Server and the managed server for WebCenter Spaces. If you encounter further issues restarting either the Administration Server or the managed server, end/kill the associated Java processes and restart both servers.

- **Newly deployed WebCenter Spaces shared library is not active:**

If a newly deployed shared library is not active, use WLS Administration Console to manually delete the non-active shared library version, and then rebuild (**Run Ant Target > clean-dist**) and redeploy (**Run Ant Target > deploy-shared-lib**) the WebCenter Spaces shared library.

- **“Error occurred attempting to display the list of pages you can access. Please contact the administrator” displays after logging in:**
Restart the managed server on which WebCenter Spaces is deployed.
- **"WCS#2009.12.22.00.49.35 : Fatal error occurred while getting members" displays:**
Restart the WebCenter Spaces application.

Removing a Custom WebCenter Spaces Deployment

You can revert to the out-of-the-box WebCenter Spaces deployment by reverting to the out-of-the-box custom.webcenter.spaces.war shared library (version 11.1.1).

1. Run the following script to stop the managed server on which WebCenter Spaces is deployed:
 - UNIX: DOMAIN_HOME/bin/stopManagedWeblogic.sh
 - Windows: DOMAIN_HOME\bin\stopManagedWeblogic.cmd
2. Delete all WebCenter Spaces custom shared library versions, **except** for the out-of-the-box version 11.1.1.
See also [Reverting to a Previous Version](#).
3. Run the following script to start the managed server on which WebCenter Spaces is deployed:
 - UNIX: DOMAIN_HOME/bin/startManagedWeblogic.sh
 - Windows: DOMAIN_HOME\bin\startManagedWeblogic.cmd
4. Login to WebCenter Spaces and ensure that customizations are no longer available.

Creating and Deploying New Skins

ADF Faces skins drive the look and feel of WebCenter Spaces. Out-of-the-box, WebCenter Spaces provides several built-in skins, with names such as *Deep Sea*, *Storm* and so on, so you can experiment with different environments for your instance and choose the one that works best.

If none of the built-in skins suit your requirements or if you want to apply a look and feel that reflects your corporate brand, you can build your own ADF Faces skins and apply them to WebCenter Spaces.

Out-of-the-Box – Skins

All the built-in skins for WebCenter Spaces are available in at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\skins\src\resources\META-INF\adf\spaces\skins
```

And the default `trinidad-skins.xml` is available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\skins\web\WEB-INF
```

Sample – Custom Skin

A custom skin example is available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomSkin\src\META-INF\custom\spaces\skins\
```

SKIN ARTIFACT	SAMPLE
<code>trinidad-skins.xml</code>	<code><Unzip_Directory>\ExtendWebCenterSpaces\CustomSkin\src\META-INF\trinidad-skins.xml</code>
Custom skin ID	<p>myskin.custom.desktop</p> <p>Code sample snippet in <code>trinidad-skins.xml</code>:</p> <pre><skin> <id>myskin.custom.desktop</id> <family>myskin</family> <render-kit-id>org.apache.myfaces.trinidad.desktop</render-kit-id> <style-sheet-name>custom/spaces/skins/myskin/myskin.css</style-sheet-name> <extends>webcenter.desktop</extends> </skin></pre>
Custom CSS file	<code>\custom\spaces\skins\myskin\myskin.css</code>
CSS image folder	<code>\custom\spaces\skins\myskin\images</code>

Creating a New Skin

If you want to use your own skins with WebCenter Spaces, you must provide the skin file (.css), supply all supporting images, and register the skin in a `trinidad-skins.xml` file.

The skin ID that you supply (in `trinidad-skins.xml`) must be unique and include the text “.custom”, for example, **myskin.custom.desktop**.

Important: Do not remove or modify the following section in `trinidad-skins.xml`.

```
<!-- Start of DO-NOT-MODIFY section -->
<skin>
  <id>webcenter.desktop</id>
  <family>webcenter</family>
  <render-kit-id>org.apache.myfaces.trinidad.desktop</render-kit-id>
  <style-sheet-name>adf/spaces/skins/additions/webcenter-skin-
additions.css</style-sheet-name>
  <extends>blafplus-rich.desktop</extends>
</skin>
<skin>
  <id>webcenter-fusion.desktop</id>
  <family>webcenter-fusion</family>
  <render-kit-id>org.apache.myfaces.trinidad.desktop</render-kit-id>
  <style-sheet-name>adf/spaces/skins/fusion/fusion.css</style-sheet-name>
  <extends>fusion.desktop</extends>
</skin>
<!-- End of DO-NOT-MODIFY section-->
```

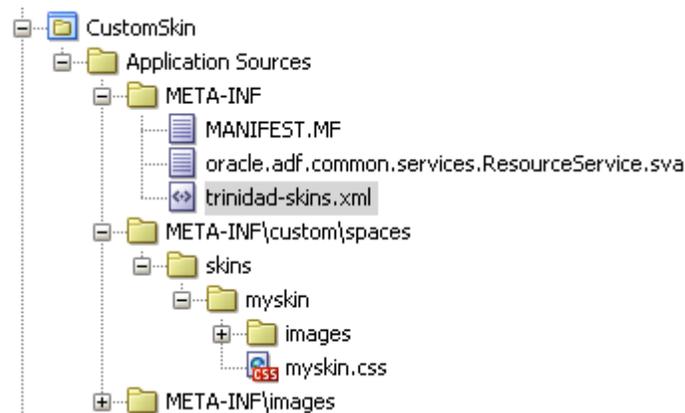
For detailed information about creating, packaging and deploying ADF Faces skins, see:

- My Faces documentation - <http://myfaces.apache.org/trinidad/devguide/skinning.html>
- ADF Faces documentation - http://download.oracle.com/docs/cd/E12839_01/web.1111/b31973/af_skin.htm

Packaging and Deploying New Skins

When your skin is ready for use in WebCenter Spaces, package the skin definition and skin images into a .JAR file, add the .JAR to the WebCenter Spaces shared library, and deploy your customizations to WebCenter Spaces as follows:

1. Copy your custom `trinidad-skins.xml` file to the `\META-INF` directory of a .JAR.

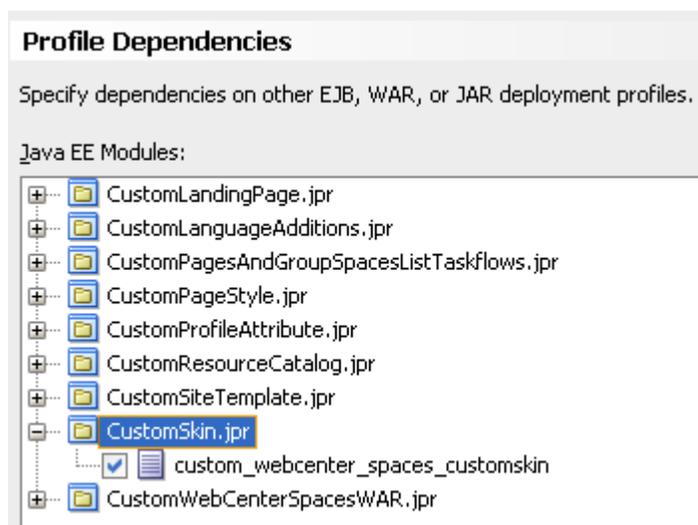


2. Copy the skin .css and any required images to the appropriate directories in the .JAR, for example:

`META-INF\custom\spaces\skins\myskin`

`META-INF\custom\spaces\skins\myskin\images`

3. Ensure that the **CustomSkin** project is selected in the deployment profile.

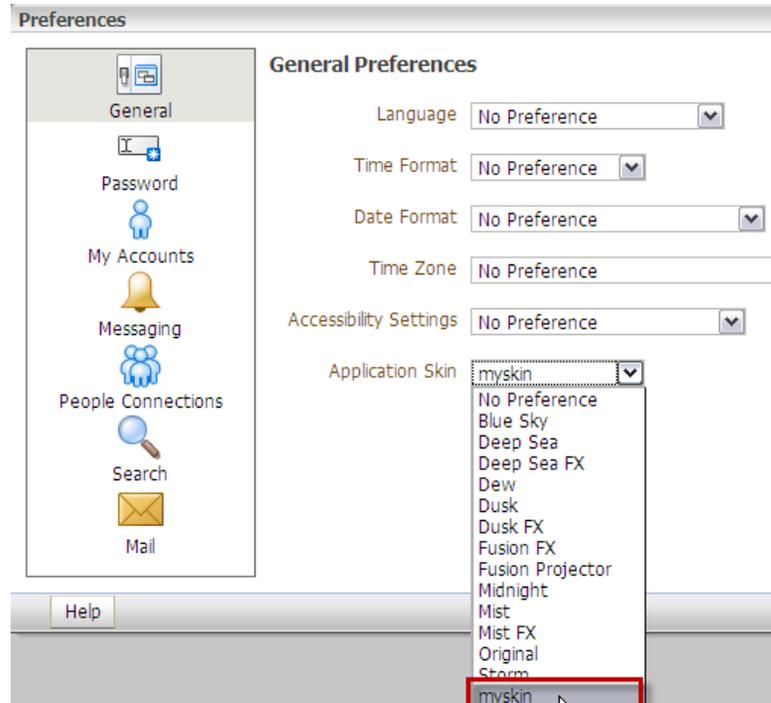


4. Deploy your custom skins.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

5. Login to WebCenter Spaces, then navigate to WebCenter Administration or the user Preferences screen and ensure that the new custom skin “**myskin**” is available.

In this example, the sample skin displays:



Customizing Resource Catalogs

Resource catalogs define the content and resources that users can add to WebCenter Spaces pages at runtime using Oracle Composer. WebCenter Spaces uses three resource catalogs:

- **Personal space catalog** – Defines content available to users working in their personal space. Located at:
`\oracle\adf\rc\metadata\scopedMD\defaultScope\PersonalSpaceCatalog.xml`
- **Default group space catalog** – Defines content available to all group spaces (by default). Located at:
`\oracle\adf\rc\metadata\scopedMD\defaultScope\DefaultGroupSpaceCatalog.xml`
- **Group space catalog** – Defines content available to a specific group space. Located at:
`\oracle\adf\rc\metadata\scopedMD\<internal_group_space_ID>\GroupSpaceCatalog.xml`

The following sections describe how to customize any of the out-of-the-box resource catalogs. You can add new content, remove content, and organize resources into folders and subfolders to suit your audience.

Refer to the *Developer's Guide for Oracle WebCenter* for an overview of the resource catalog and how it is used in WebCenter applications
http://download.oracle.com/docs/cd/E15523_01/webcenter.1111/e10148/jpsdg_catalog.htm

Out-of-the-Box – Resource Catalogs

Out-of-the-box resource catalogs are available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\catalog
```

Here you will find the default personal catalog (`PersonalSpaceCatalog.xml`) and the default group space catalog (`DefaultGroupSpaceCatalog.xml`).

Sample – Custom Resource Catalogs

Several custom catalog examples are also available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomResourceCatalog\src\custom\oracle\adf\rc\metadata\scopedMD
```

Samples include a personal space catalog, a default group space catalog, and a catalog for a sample group space using internal ID “s63f8900f_0fb0_4325_8df5_6c8ec8af3d11”.

If you look at the sample personal space catalog (`PersonalSpaceCatalog.xml`), for example, you will see there is an additional task flow called ‘My Group Spaces’ at the end of the file. The catalog definition for a task flow looks like this:

```
<!-- My Group Spaces List Viewer -->
<resource path="custom.webcenter.spaces.custompagesandgslst.jar/ADF_TaskFlow/WEB-
INF+GroupSpacesListView.xml#GroupSpacesListView"
repository="application.classpath"
id="myGSListPage">
<attributes>
  <attribute value="Group Space List" attributeId="Title" isKey="true"/>
  <attribute value="Group Space List View" attributeId="Description" isKey="true"/>
  <attribute value="My Group Spaces" attributeId="Subject" isKey="true"/>
  <attribute value="oracle.webcenter.spaces.browser" attributeId="WEBCENTER_SERVICE_ID" isKey="false"/>
  <attribute value="/adf/webcenter/community_qualifier.png" attributeId="IconURI"/>
</attributes>
</resource>
```

The next section describes how to determine the **resource path** for a task flow that you want to include in a catalog.

Obtaining Task Flow Resource Paths for Catalog Definitions

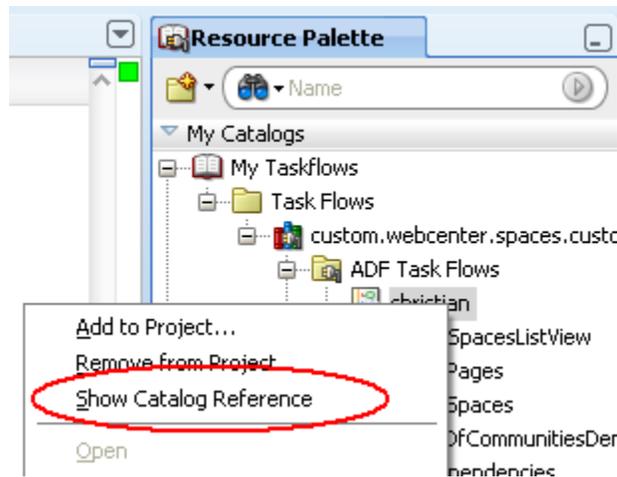
If you want to offer a custom task flow in WebCenter Spaces, you must:

- Declare the task flow in the appropriate resource catalog. The task flow declaration requires you to know the task flow’s **resource path**. For details, see below.
- Package the task flow in an **ADF Library JAR**, add the .JAR file to the WebCenter Spaces shared library, and deploy your customizations to WebCenter Spaces. To learn how, see [Deploying Additional Task Flows](#).

To determine the resource path for a task flow:

1. In the JDeveloper Resource Palette, create a new catalog, for example, My Task Flows.
2. Add a new folder, for example, Task Flows.
3. Deploy the project containing your custom task flow to a .JAR file.
4. In IDE Connections, create a new File System connection pointing to the file system directory where the above .JAR is located.
5. Drag and drop the .JAR to the catalog folder.

6. Right-click your task flow and select **Show Catalog Reference**.



7. Use this catalog reference in your resource catalog definition file:

Runtime Catalog Reference

i To include this resource in a runtime catalog, add the ADF library to your project and add the following declaration to your catalog definition. You may need to change the "id" so it is unique within the catalog folder.

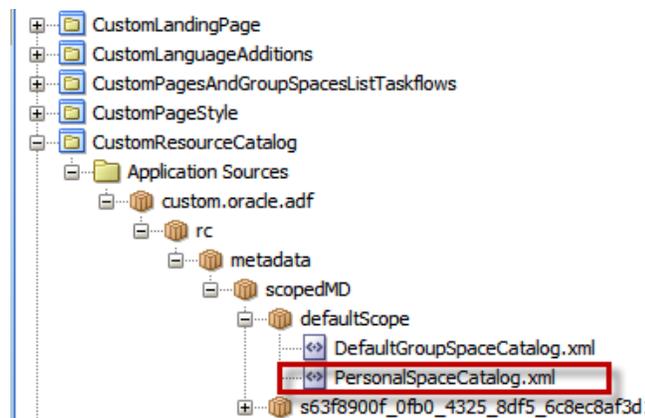
Resource Declaration:

```
<resource id="mytaskflow"
  repository="application.classpath"
  path="custom.webcenter.spaces.custompagesandgslist.jar/ADF_TaskFlow/WEB-INF+mytaskflow.xml#mytaskflow"/>
```

Customizing the Personal Space Catalog

If you want to offer a unique set of resources to users working in their personal spaces, you can modify the default personal space catalog and deploy the customized version to WebCenter Spaces. To do this:

1. Create or customize the resource catalog file `PersonalSpaceCatalog.xml`.
2. Package `PersonalSpaceCatalog.xml` in a .JAR file, using the following path:
`\custom\oracle\adf\rc\metadata\scopedMD\defaultScope\PersonalSpaceCatalog.xml`



8. Deploy your custom catalog.

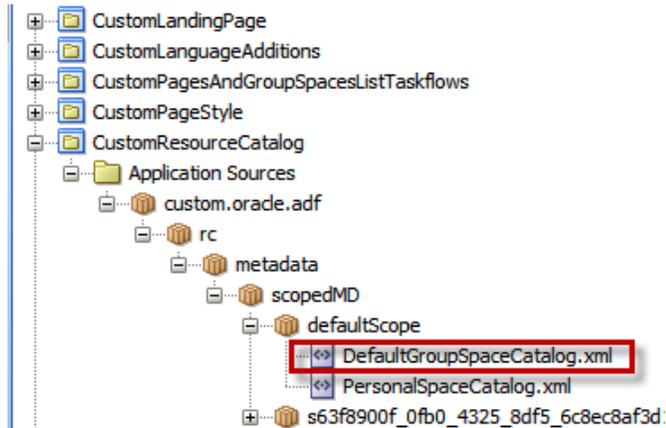
For details, see section [Packaging and Deploying Customized Catalogs](#).

Customizing the Default Group Space Catalog

Out-of-the-box, all group spaces expose content and resources contained in the *default group space catalog*. To offer a different set of resources, you can modify this catalog and deploy the customized version to WebCenter Spaces.

Note: Individual group spaces with very specific content requirements can offer their own customized catalog. For details, refer to the next section [Overriding the Default Group Space Catalog](#).

1. Create or customize the resource catalog file `DefaultGroupSpaceCatalog.xml`.
2. Package `DefaultGroupSpaceCatalog.xml` in a .JAR file, using the following path:
`\custom\oracle\adf\rc\metadata\scopedMD\defaultScope\DefaultGroupSpaceCatalog.xml`



3. Deploy your custom catalogs.

For details, see section [Packaging and Deploying Customized Catalogs](#).

Overriding the Default Group Space Catalog

If you want a particular group space to offer a unique set of resources, you can create a separate catalog named **GroupSpaceCatalog.xml** and place it in a separate catalog directory. The name of this catalog directory must match the group space's ID, for example:

```
\oracle\adf\rc\metadata\scopedMD\

```

Note: Group spaces will offer a custom catalog if one is available. Otherwise, the default group space catalog is used. Refer to the previous section, [Customizing the Default Group Space Catalog](#).

1. Determine the group space's internal ID through My Group Spaces or WebCenter Spaces Administration.

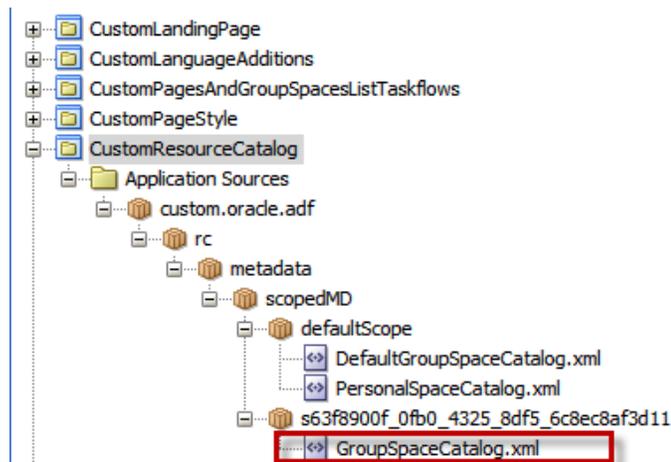


Alternatively, right-click the group space tab and choose “About this Group Space”.
A group space ID looks something like: s63f8900f_0fb0_4325_8df5_6c8ec8af3d11

2. Create or customize the resource catalog file GroupSpaceCatalog.xml.
3. Package the GroupSpaceCatalog.xml file in a .JAR file, using the following path:

```
\custom\oracle\adf\rc\metadata\scopedMD\

```

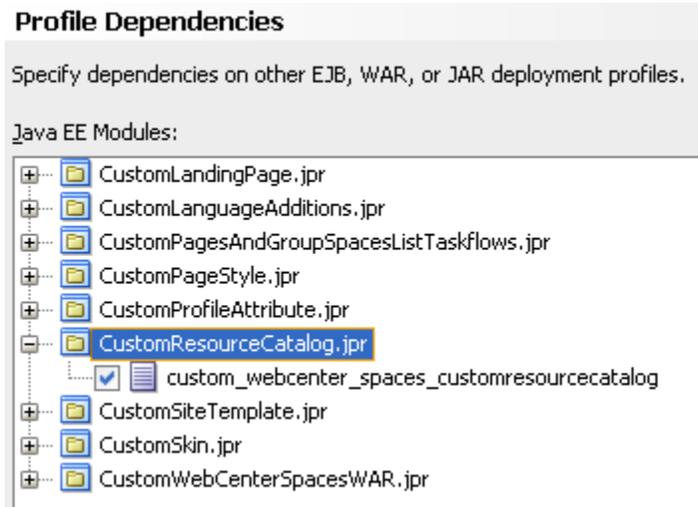


4. Deploy your customized catalog.

For details, see section [Packaging and Deploying Customized Catalogs](#).

Packaging and Deploying Customized Catalogs

1. Ensure that the **CustomResourceCatalog** project is selected in the deployment profile:

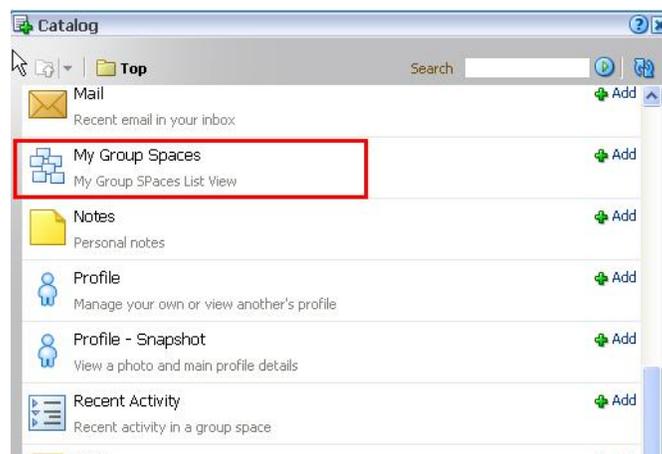


2. Deploy your custom catalogs.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

3. Login to WebCenter Spaces, and then navigate to Oracle Composer to ensure that the correct resources are available.

In this custom catalog example, there is an additional task flow in `PersonalSpaceCatalog.xml` called *My Group Spaces*.



Deploying Additional Task Flows

Out-of-the box, WebCenter Spaces provides a range of collaborative, social networking, and personal productivity task flows. Anyone using WebCenter Spaces can access these built-in task flows through Oracle Composer.

If you have created your own task flows in JDeveloper, you can deploy them to WebCenter Spaces and access them through Oracle Composer alongside the default task flows.

A task flow is a self-contained, reusable ADF artifact. Task flows typically include a task flow definition file and a JSP fragment. Task flows that offer a UI built using data controls also include additional data control files, a page definition file, and a data binding file. Refer to the *Fusion Developer's Guide for Oracle Application Development Framework* for more information about packaging and deploying task flows.

(http://download.oracle.com/docs/cd/E12839_01/web.1111/b31974/partpage3.htm).

Out-of-the- Box Box – Task Flows

Many built-in task flows are available with WebCenter Spaces. To learn how to customize any of the out-of-the-box task flows, read the *Customizing WebCenter Task Flows* whitepaper (on Oracle Technology Network at

http://www.oracle.com/technology/products/webcenter/pdf/owcs_r11_custom_taskflow_wp.pdf).

Sample – Custom Task Flows

Two sample task flows are provided at the following .ZIP locations:

TASK FLOW	DESCRIPTION	SAMPLE
My Group Spaces – List View	Displays a list of group spaces	<Unzip_Dir>\ExtendWebCenterSpaces\CustomPagesAndGroupSpacesList Taskflows\public_html\MyGroupSpacesListView.jsff
Page List	Displays list of pages with context menus	<Unzip_Dir>\ExtendWebCenterSpaces\CustomPagesAndGroupSpacesList Taskflows\public_html\ListOfPages.jsff

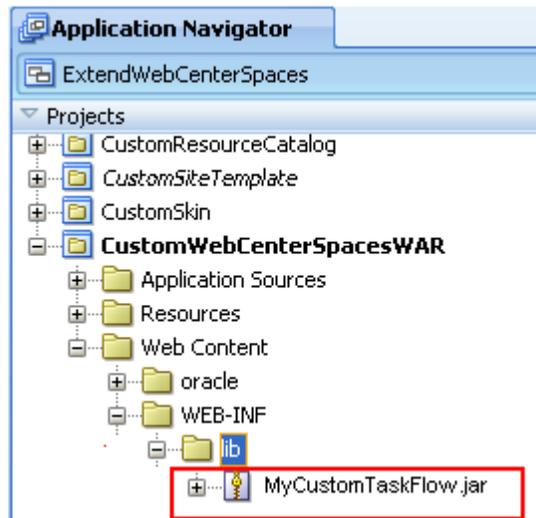
Packaging and Deploying Task Flows

Additional task flows must be packaged in an **ADF Library JAR**. Once packaged into a .JAR file, you must add the .JAR file to the WebCenter Spaces shared library and deploy your customizations to WebCenter Spaces. To do this:

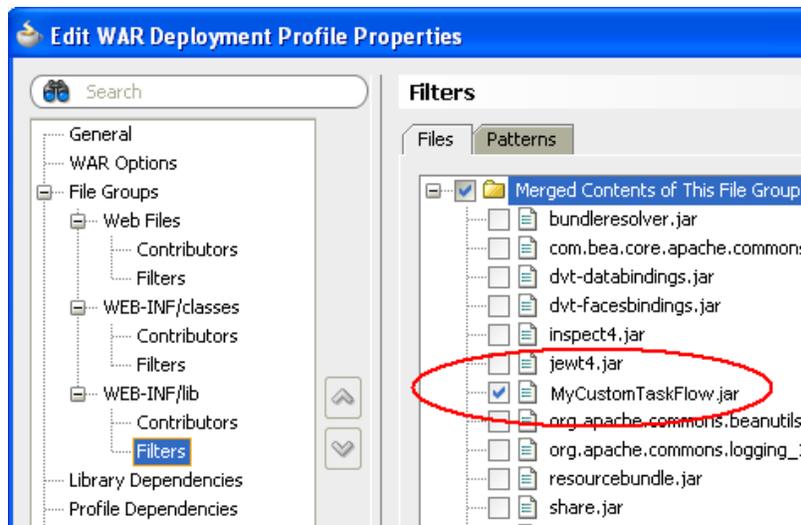
1. Package your custom task flows with a directory structure appropriate for an ADF Library JAR.

- Copy the JAR containing your task flow to the WEB-INF\lib directory of the **CustomWebCenterSpacesWAR** project on the file system.

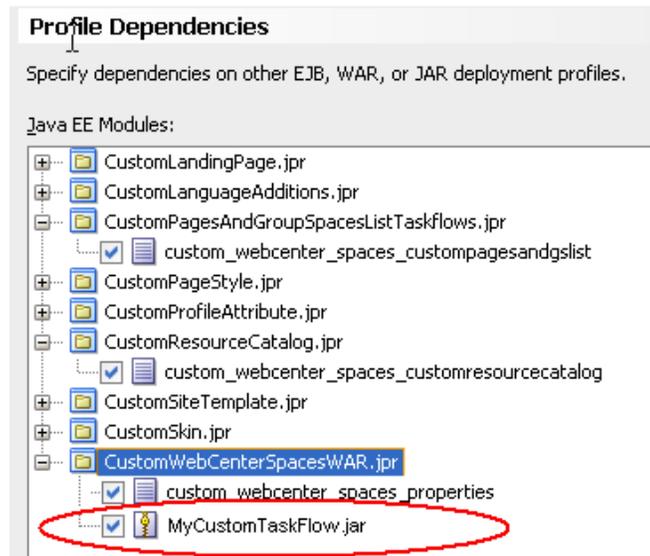
If the \lib directory does not exist, you must create it:



- Right-click the **CustomWebCenterSpacesWAR** project, and select **Project Properties**.
- Select **Libraries and Classpath** and add the task flow JAR by navigating to the WEB-INF\lib directory.
- Select **Deployment**, and then edit the deployment profile for **custom.webcenter.spaces.war**.
- Select **File Groups>WEB-INF/lib >Filters**, and select the task flow JAR.



7. Select **Library Dependencies**, and check that the task flow JAR is selected.
8. Select **Profile Dependencies**, and check that the task flow JAR is selected (under **CustomWebCenterSpacesWAR.jpr**).



9. Select the **CustomResourceCatalog** project as well, as you will need to customize and deploy a new resource catalog that displays your new task flow. Resource catalog customization is described in step 10.
10. (Optional) If you want to deploy the sample task flows, include the **CustomPagesAndGroupSpacesListTaskflows** project in the deployment profile.
11. Add an entry for your task flow in the required resource catalogs:

For example,

```
<resource id="MyCustomTaskFlowId"
name="My Task Flow"
description="My custom task flow"
repository="application.classpath"
path="MyCustomTaskFlow.jar/ADF_TaskFlow/WEB-
INF+CustomTaskFlow.xml#CustomTaskFlow"/>
```

For detailed instructions, refer to the earlier section [Customizing Resource Catalogs](#).

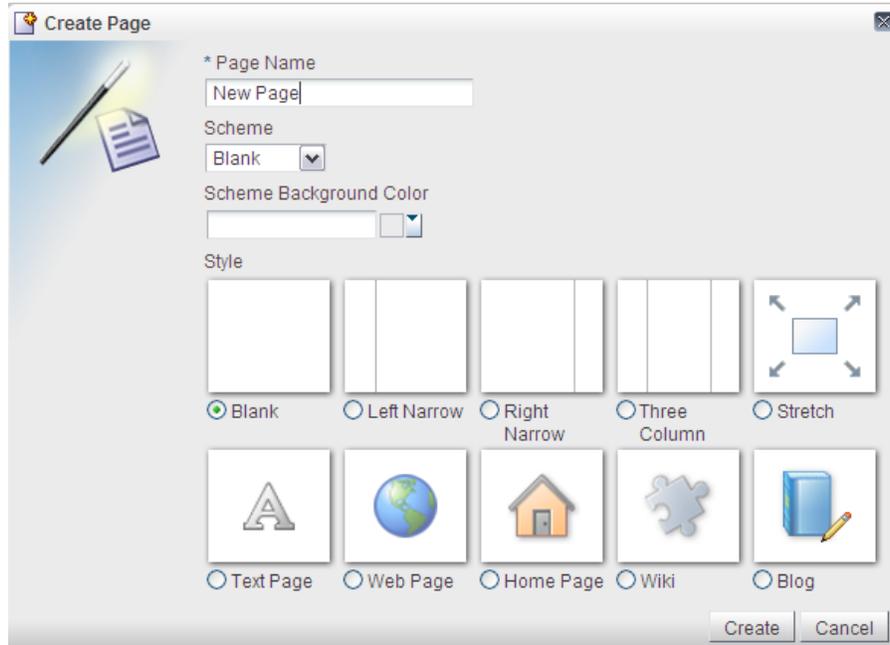
12. Deploy your custom task flows.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

13. Login to WebCenter Spaces and verify that your additional task flows are available as expected.

Modifying Page Styles

WebCenter Spaces comes with pre-built page styles with names such as *Web Page* and *Left Narrow*:



You can design and deploy new page styles for use in WebCenter Spaces. You can also control exactly which page styles are available to users working in both personal spaces and group spaces.

Out-of-the-Box – Page Styles

Out-of-the-box WebCenter Spaces page styles are available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\page_styles
```

Out-of-the-Box – Page Style List

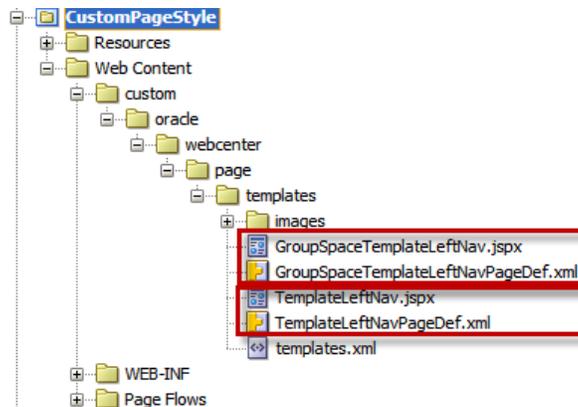
The file `templates.xml` lists the default page styles that are available to personal/group spaces and is available here:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\page_styles\oracle\webcenter\page\templates\templates.xml
```

Sample – Custom Page Styles

Several custom page style examples are also available:

- GroupSpaceTemplateLeftNav
- TemplateLeftNav



These custom page styles are available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomPageStyle\public_html\
custom\oracle\webcenter\page\templates
```

Creating a New Page Style

A page style is a .jspx page (and its associated page definition) that defines content layout areas and the content flow for pages created in WebCenter Spaces. Optionally, page styles can include task flows, text, and images to give users a jump-start or to standardize a page's look and feel.

When you create a new page, WebCenter Spaces copies the .jspx associated with the page style selection and saves the copy (as a .jspx) with the page name you specify.

To create a new page style for WebCenter Spaces:

1. Create or customize a page style .jspx.

Prefix the file name with GroupSpace if your page style will be used by group spaces. For example, GroupSpaceMyPageStyle.jspx.
2. Copy the following files to \custom\oracle\webcenter\page\templates\:
 - <my_page_style>.jspx
 - <my_page_style>PageDef.xml
3. Edit the page styles list located at:


```
\custom\oracle\webcenter\page\templates\templates.xml
```

Customizing the Page Style List

The page styles that are exposed to WebCenter Spaces users are listed in **templates.xml**. To enable a new custom page style, you must add it to the list. Through editing the page style list, you can also determine the order that page styles display, choose which page styles apply to group spaces, and remove page styles.

WebCenter Spaces uses the page style list located at:

```
\custom\oracle\webcenter\page\templates\templates.xml
```

To add page styles or modify the page style list in any way:

1. Make a copy of `templates.xml`.
2. Add, rearrange, or delete page styles, and then copy your custom versioned to the WebCenter Spaces page style directory
`\custom\oracle\webcenter\page\templates\.`

In this example, two custom pages styles, **TemplateLeftNav** and **GroupSpaceTemplateLeftNav**, are included at the top of the file:

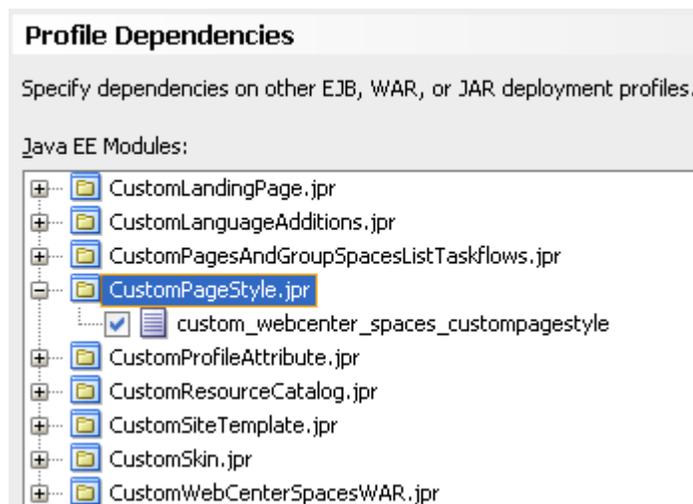
```
<?xml version='1.0' encoding="UTF-8"??>
<templatesDef xmlns="http://xmlns.oracle.com/webcenter/page">
  <templateDef name="TemplateLeftNav.jspx" title="Left Navigation"
    icon="/custom/oracle/webcenter/page/templates/images/leftNavigation.png"
    forGroupSpace="false"/>
  <templateDef name="GroupSpaceTemplateLeftNav.jspx" title="Left Navigation"
    icon="/custom/oracle/webcenter/page/templates/images/leftNavigation.png"
    forGroupSpace="true"/>
  <templateDef name="TemplateBlank.jspx" titleKey="TEMPLATETITLE_BLANK"
    titleBundleName="oracle.webcenter.page.model.resource.PageBundle"
    forGroupSpace="false"/>
  <templateDef name="TemplateNarrowLeft.jspx"
    titleKey="TEMPLATETITLE_NARROWLEFT"
    titleBundleName="oracle.webcenter.page.model.resource.PageBundle"
    forGroupSpace="false"/>
</templatesDef>
```

- Use **forGroupSpace** to determine whether page styles display for group spaces or personal spaces:
 - To expose a page style in group spaces, set **forGroupSpace="true"**
 - To expose a page style in personal spaces, set **forGroupSpace="false"**
 - To offer the same page style in both personal *and* group spaces, add two separate `<templateDef>` entries.
- If desired, change the display order.

Packaging and Deploying a Custom Page Style or Page Style List

When a new page style is ready for use in WebCenter Spaces, you must package the page style .jspx file together with an updated page style list (template.xml) into a .JAR file, add the .JAR file to the WebCenter Spaces shared library, and then deploy your customizations to WebCenter Spaces. To do this:

1. Copy the `template.xml` file to the `\custom\oracle\webcenter\page\templates` directory of a .JAR
2. Copy any required images to the appropriate directories in the .JAR, for example: `\custom\oracle\webcenter\page\templates\images`
3. Ensure that the **CustomPageStyle** project is selected in the deployment profile:

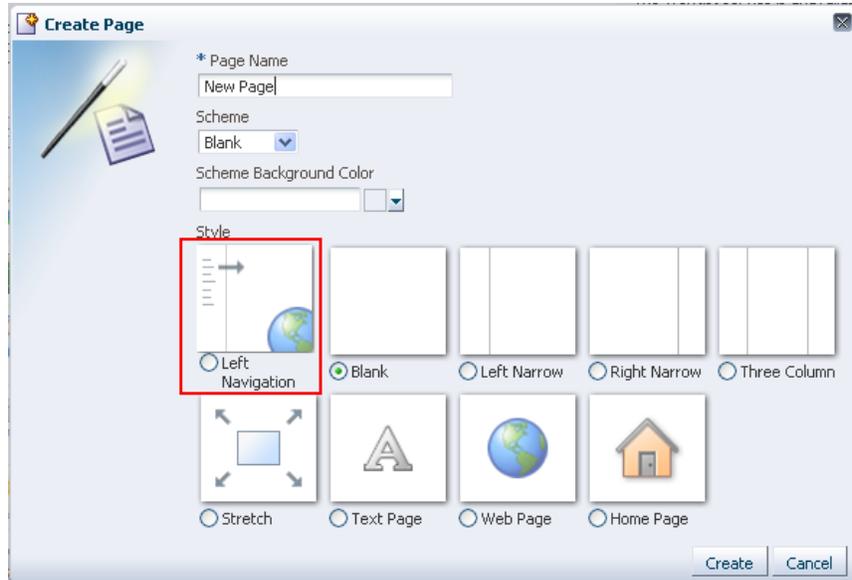


4. Deploy your custom page styles.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

5. Login to WebCenter Spaces to verify that the correct page style list displays (check both personal and group spaces) and that each page style works properly.

In this example, the Create Page dialog for personal spaces (and group spaces) offers an additional page style:



Customizing the Public Welcome Page

The default public welcome page is the first thing users see when they access WebCenter Spaces. This page provides information on the kinds of things you can do in WebCenter Spaces, and provides an area through which authorized users can log in to the application.



You cannot use Oracle Composer to edit or change security settings for the public welcome page but you can deploy a customized version of this page that suits your exact requirements.

You can use the default public welcome page but remove the login portlet that displays by default. You can easily achieve this by setting an option that hides the login portlet and replaces it with a simple login link displayed at the top of the page.

Note: WebCenter Spaces provides an option that disables public access to *all* application pages, including the public welcome page. When this option is set, users are directed straight to the login page. If you are using this option, there is no need to customize the public welcome page, as it is never displayed.

Out-of-the-Box – Public Welcome Page

The default public welcome page is available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\public_html\oracle\webcenter\webcenterapp\view\templates\publichtml\WCDefaultLanding.jsp
```

Sample – Custom Landing Page

A sample welcome page is also available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomLandingPage\public_html\custom\oracle\webcenter\webcenterapp\view\templates\Landing.jspx
```

The sample welcome page contains a simple welcome message and a login link, as shown:



Hiding the Login Portlet on the Default Public Welcome Page

You can choose whether a login portlet or a login links displays on the default public welcome page, by setting an option in the start script `setDomainEnv`. When you choose to display links, the *Login* link (and optionally, a *Register* link) displays at the top of the page, as shown here:



To set this option when your WebCenter Spaces application is SSO-enabled:

1. Edit the domain start script `setDomainEnv` located at:


```
UNIX          DOMAIN_HOME/bin/setDomainEnv.sh
Windows      DOMAIN_HOME\bin\setDomainEnv.cmd
```
2. Add the following entry in the **OPTIONS** section:


```
-Doracle.webcenter.spaces.osso.enabled=true
```
3. Restart the managed server on which WebCenter Spaces is deployed.

Customizing the Public Welcome Page

Any custom welcome page (also known as a landing page) that you provide for WebCenter Spaces must be a well-formed .jspx page named **Landing.jsx**. You can use JDeveloper to create a new page from scratch or modify the default page that WebCenter Spaces provides out-of-the-box.

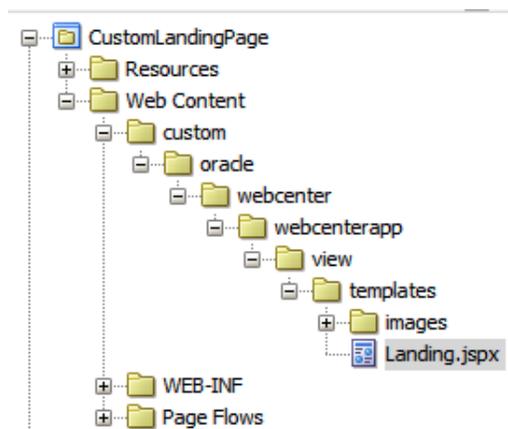
When you are finished, the new .jspx must be copied to:

```
custom\oracle\webcenter\webcenterapp\view\templates\Landing.jsx
```

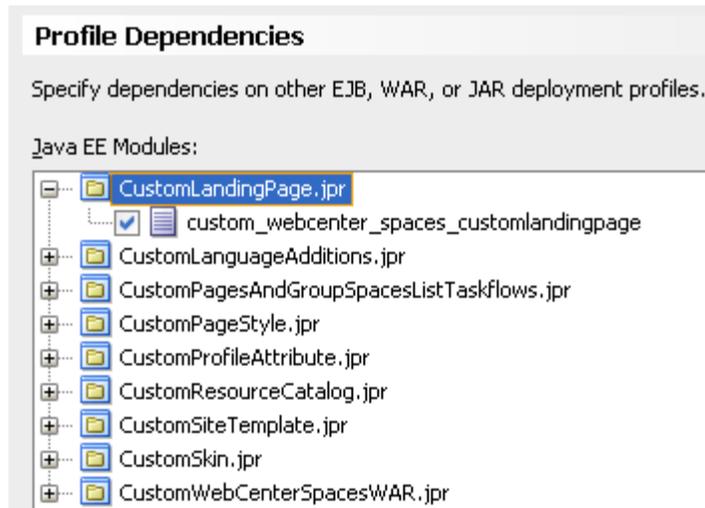
Packaging and Deploying a Customized Landing Page

When your customized landing page is ready for use in WebCenter Spaces, you must package the .jspx file in a .JAR file, add the .JAR file to the WebCenter Spaces shared library, and then deploy the new .JAR to WebCenter Spaces. To do this:

1. Copy the customized Landing.jsx file to the `custom\oracle\webcenter\webcenterapp\view\templates\` directory of a .JAR.



2. Copy any required images to the appropriate directories in the .JAR, for example: `custom\oracle\webcenter\webcenterapp\view\templates\images`
3. Ensure that the **CustomLandingPage** project is selected in the deployment profile.



4. Deploy your custom landing page.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

5. Navigate to WebCenter Spaces and verify that the custom landing page displays as expected.

The sample landing page displays as follows:



Excluding Default Group Space Pages

By default, any group space that you create from out-of-the-box templates (Community of Interest and Group Project template) offers the default page set shown below:

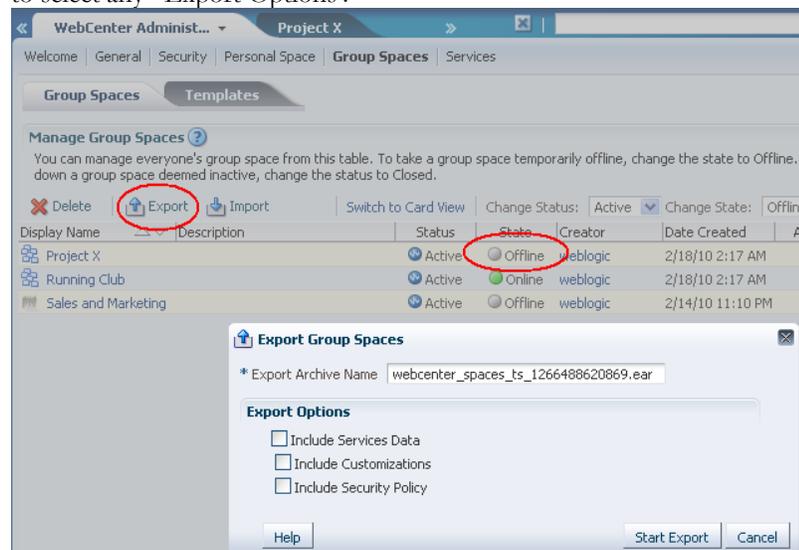


While group space members can opt to show or hide any of these pages, through their Page Manager, in some instances you may prefer to exclude one or more pages altogether. For example, if you've built your own version of the 'Documents' page you probably do not want the default page to be available too.

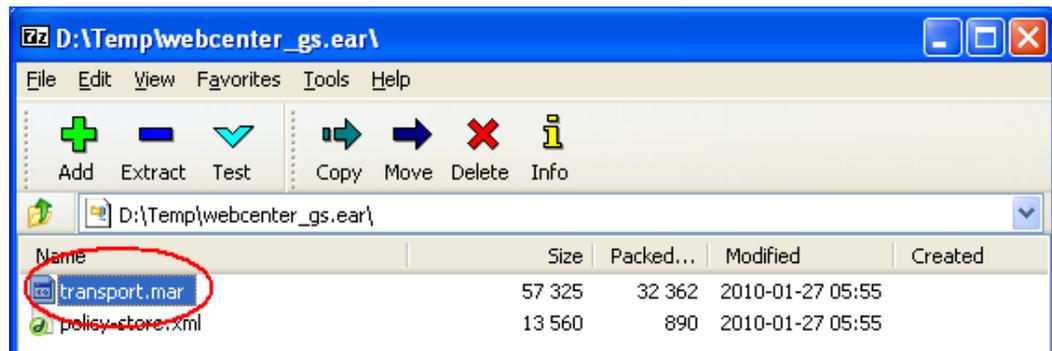
This section describes how to exclude default group spaces pages by exporting the group space, editing the group space's `pages.xml` file, and re-importing the customized group space. The steps are as follows:

1. Login to WebCenter Spaces with administrative privileges
2. Click the **Administration** link, and then click the **Group Spaces** tab.
3. Take the group spaces that you want to customize 'offline'.
4. Select the group spaces you want to customize, and then click **Export**.

As you are not using the export feature to migrate to another instance, you do not need to select any 'Export Options'.



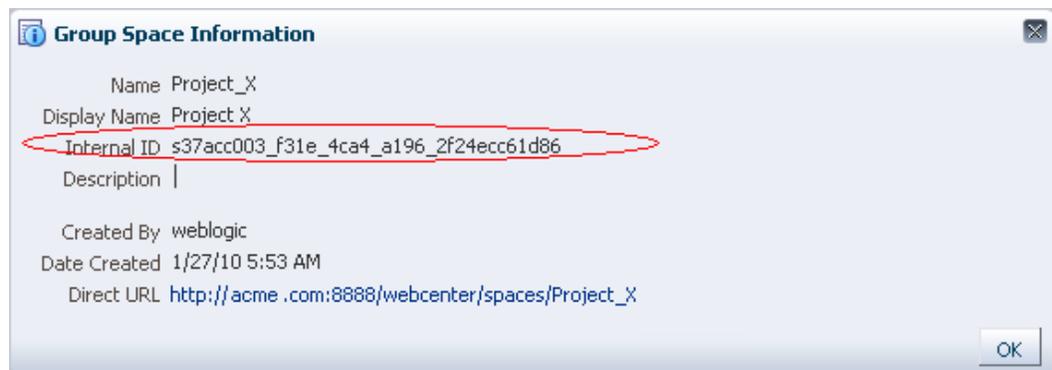
5. Click **Start Export**.
6. Click **Download**, to copy the export archive (.EAR file) to your local file system.
7. Open the .EAR file with WinZip or a similar tool.



The pages.xml file that you need to edit is located in transport.mar.

8. Extract transport.mar to your local file system.
9. Open transport.mar with WinZip or a similar tool.
10. Locate pages.xml for the group space that you want to edit. The file is located at:
`\oracle\webcenter\page\scopedMD<groupspace_ID>\pages.xml`

If you do not know your group space's internal ID, right-click the group space tab and choose "**About this Group Space**". A group space ID looks something like:
s63f8900f_0fb0_4325_8df5_6c8ec8af3d11:



11. Open pages.xml in a suitable text editor. You will see entries for the default page set:
 - **Home** - COIHome.jspx
 - **Documents** - GroupSpaceDocLibMainView.jspx
 - **Discussions** - ForumMainView.jspx

- **Announcements** - AnnouncementsMainView.jspx
 - **Events** - EventsMainView.jspx
 - **Lists** - ListsMainView.jspx
 - **Search** - SearchMainView.jspx
 - **Tasks** - TasksMainView.jspx
 - **Activity Stream** - GroupSpaceActivityStreamMainView.jspx
12. Delete the <pageDef> tag for any page that you want to exclude. For example, to delete the **Discussions** page, delete the line:
- ```
<pageDef contentMRef="/oracle/webcenter/page/scopedMD/
<groupspace_ID>/businessRolePages/ForumMainView.jspx"
hidden="false" id="<Page_ID>" shared="true"/>
```
- You can remove any of the pages listed in step 11 above. **Do not** attempt to delete any other pages listed in `pages.xml` as this will cause the group space to malfunction.
13. Save your updates to `pages.xml`, add the updated file to the export .MAR file, and then include the updated .MAR file in the group space export archive (.EAR).
14. Navigate to the **WebCenter Spaces Administration - Group Space** tab, and import the group space archive containing your customizations.
15. Navigate to the group space to verify that all the pages you removed do not display.
16. (Optional) Save the group space as a template if you intend to build other group spaces with the same requirement.
- Navigate to the group space's **Settings - General** tab to access the "Save As Group Space Template" option.

## Customizing Site Templates

In WebCenter Spaces, site templates define the look, feel, and structure of individual pages and groups of pages.

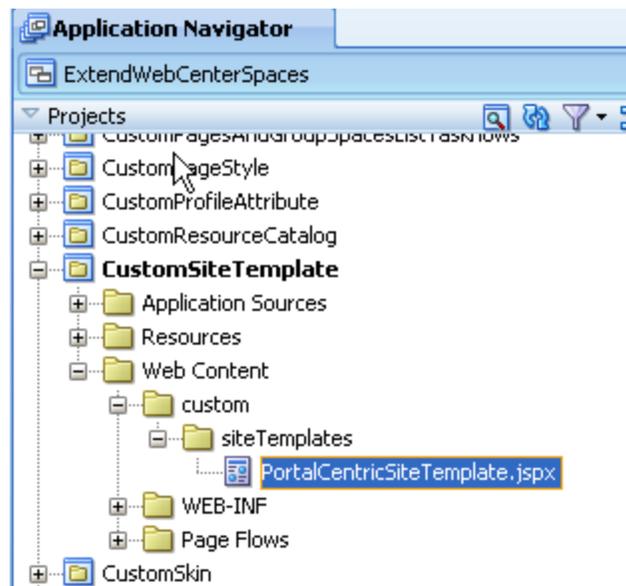
### Out-of-the-Box – Site Templates

Out-of-the-box site templates include:

- **Default** - Normal WebCenter Spaces view that includes a global tool bar, the sidebar, the footer, and so on.
- **Maximized** - Displays a particular group space or personal space in full-screen mode.

## Sample – Site Templates

A sample custom site template called “PortalCentricSiteTemplate” is available in the **CustomSiteTemplate** project:



## Creating and Customizing Site Templates

Site template customization is the subject of a whitepaper called “*Customizing Site Templates in WebCenter Spaces (11.1.1.2.0)*” available from Oracle Technology Network at:

[http://www.oracle.com/technology/products/webcenter/pdf/owcs\\_ps1\\_site\\_template\\_wp.pdf](http://www.oracle.com/technology/products/webcenter/pdf/owcs_ps1_site_template_wp.pdf)

This whitepaper describes how to create and register new site templates using JDeveloper, and provides a list of WebCenter Spaces components that site designers can reuse within their custom site templates.

## Renaming the Personal Space Tab

In the ‘Default’ site template the first tab is the *Personal Space* tab. This tab displays the private work area allocated to each WebCenter Spaces user. In non-English applications, a suitable translation is provided for each language that WebCenter Spaces supports.

If you want to override the default tab name, you can configure a new value in the `extending-spaces-properties.xml` file and include this file in the deployment profile for your customized WebCenter Spaces .WAR as follows:

1. Open the property file located at:  
`<Unzip_Dir>/ExtendWebCenterSpaces/CustomWebCenterSpacesWA`

R/public\_html/oracle/webcenter/webcenterapp/extendingspaces/extending-spaces-properties.xml

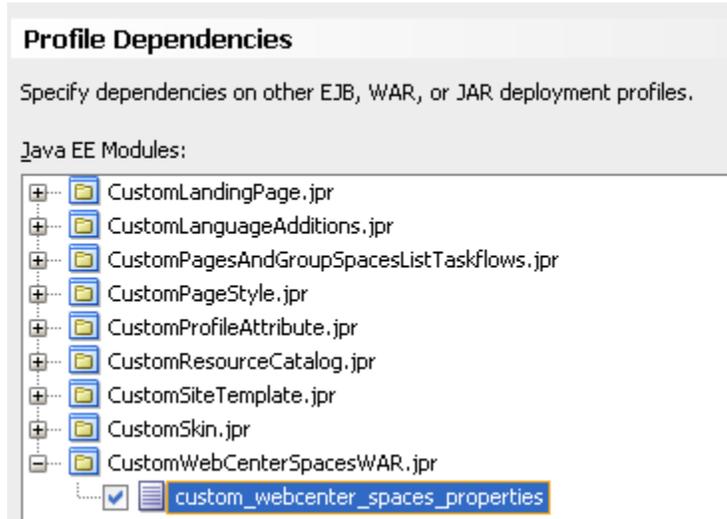
- Update the property `oracle.webcenter.spaces.psLabel` with the name you want displayed for the **Personal Space** tab.

For example:

```
<property name="oracle.webcenter.spaces.psLabel"
value="'My Space'"/>
```

The value can be a literal string or a `beanName.methodName` that will be evaluated at run-time.

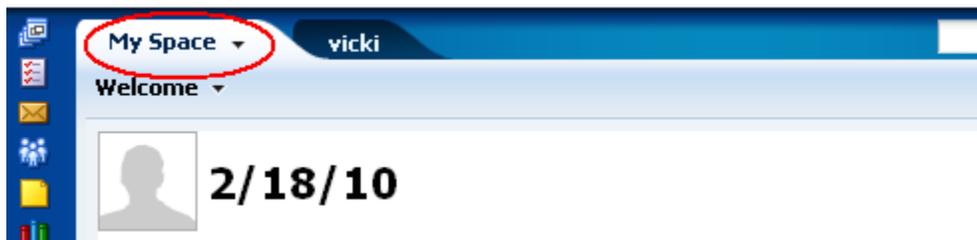
- Ensure that **custom\_webcenter\_spaces\_properties** is selected in the deployment profile:



- Deploy your customizations.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

- Navigate to WebCenter Spaces and verify the new tab name.



## Customizing User Profile Attributes

In WebCenter Spaces, the 'profile' feature provides a variety of views into your own and other users' personal profile information. Such information can include your mail address, phone number, office location, department, manager, direct reports, and so on. Most profile attributes are stored and read from the WebCenter Spaces LDAP identity store. There are three exceptions-- the profile photo, status message, and expertise.

This section describes how you can override the default attributes by creating a Java class that overrides the default attribute source, and then configuring `people-profile-config.xml` to point to this new class.

For example, you could replace the default LDAP attribute `Department` with a custom value as follows:

```
public String getDepartment()
 throws ProfileException
{
 return "Sales Department";}
```

Important considerations:

- **Performance:** When implementing custom logic to fetch values from a database, remember that the JDBC call executes each time any profile is accessed. WebCenter Spaces does not cache profile data. Keep this in mind when coding your custom class to minimize any impact on performance.
- **Search:** Profile attribute searches are always against the configured identity store. This is still the case even if you customize an attribute source.

### Sample – Customized Profile Attributes

A customized example is available at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomProfileAttribute\src\custom
```

The sample provided, overrides the default LDAP attributes as follows:

- **Department** – replace with the hard coded string **Sales Department**
- **Photo** - replaces users' photos with images from an alternative store (the file system in this case)

## Customizing Profile Attributes

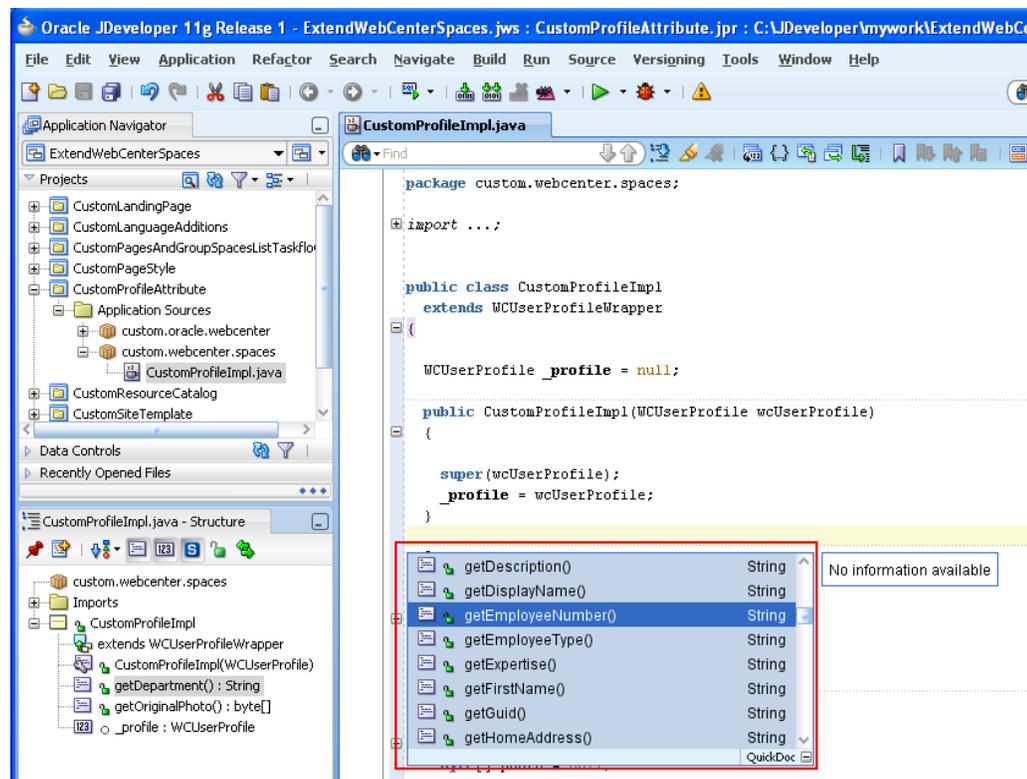
To customize one or more user attributes displayed in WebCenter Spaces user profiles:

1. Use JDeveloper to implement a customized profile implementation class.

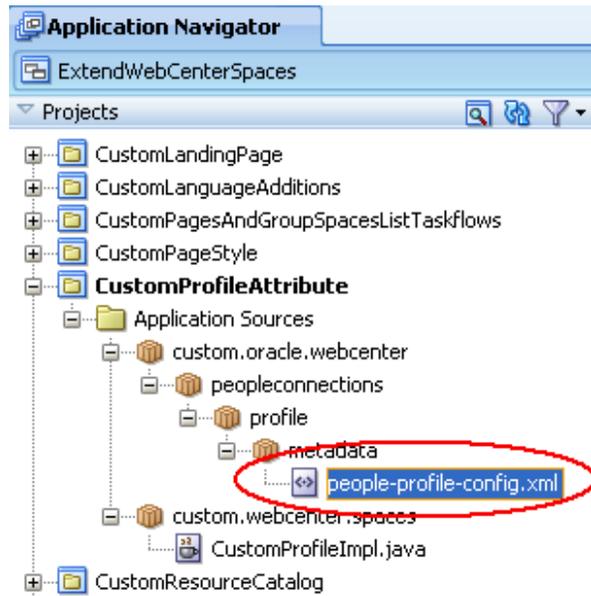
You can specify any valid name for your custom class and package name.

To review the sample implementation class provided, navigate to  
 CustomProfileAttribute> Application Sources>  
 custom.webcenter.spaces> CustomProfileImpl.java

**Tip:** Use Ctrl+Space to view/add all the attribute implementation methods that are available, using JDeveloper's Code Completion Insight functionality shown below:

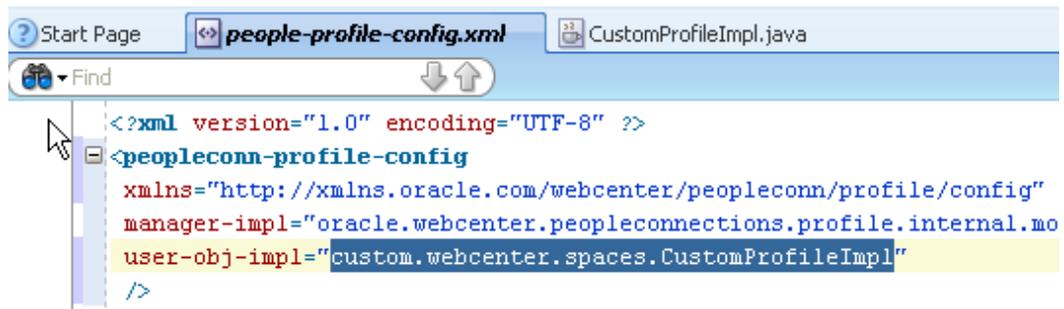


2. In JDeveloper, open CustomProfileAttribute\Application Sources\custom.oracle.webcenter\peopleconnections\profile\metadata\people-profile-config.xml:



- To override the default profile attributes, specify your custom profile implementation class using the `user-obj-impl` setting.

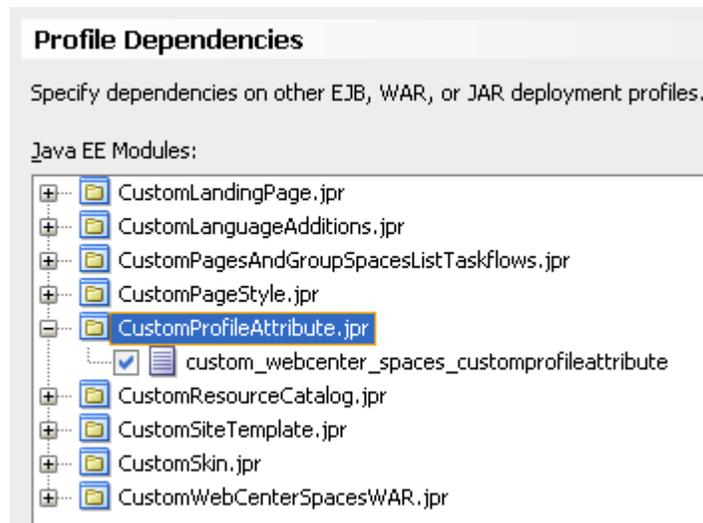
Any valid class name and package name is acceptable. For example, specify the sample Java class provided (`CustomProfileImpl.java`) that is packaged in `custom.webcenter.spaces`.



#### Notes:

- Do not change anything else in this file.
- Only reference one implementation class from the `people-profile-config.xml` file.
- Do not rename the package containing `people-profile-config.xml` or modify the structure in any way.

4. Ensure that the **CustomProfileAttribute** project is selected in the deployment profile:



5. Deploy your customized profile attributes.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

6. Login to WebCenter Spaces, and open your personal profile gallery to verify that your customized attributes display.

For example, if you deployed the sample implementation class provided (`CustomProfileImp.java`) verify that:

- Department – Sales Department
- Photo –
  - monty.png displays when logged in with the user name Monty
  - pat.png displays when logged in with the user name Pat
  - default shadow image displays if an alternative image is not available for the logged in user

If new images do not display, click the **Refresh** link (in the profile gallery) to clear cached data.

Personal Space **monty** ▾

Gallery | Message Board | Activity Stream | Connections | Feedback | Profile ▾

**monty**  
Sales Manager  
Sales Department  
no recent updates  
[Edit](#)

Upload Refresh

**Summary**

|                       |                  |
|-----------------------|------------------|
| <b>Display Name</b>   | monty            |
| <b>Email</b>          | monty@acme.com   |
| <b>Department</b>     | Sales Department |
| <b>Designation</b>    | Sales Manager    |
| <b>Manager</b>        |                  |
| <b>Direct Reports</b> |                  |
| <b>Phone</b>          | 555-2468         |
| <b>Time Zone</b>      | US Eastern Time  |

## Filtering the Language List

WebCenter Spaces provides run-time translations for 27 languages and 100 different locales. You can reduce the number of available languages exposed in WebCenter Spaces by modifying the configuration file `supported-languages.xml`.

### Out-of-the-Box – Language List

The default languages for WebCenter Spaces are listed in `supported-languages.xml` at:

```
<Unzip_Dir>\ExtendWebCenterSpaces\SourceFiles\langs\oracle\webcenter\webcenterapp\metadata\supported-languages.xml
```

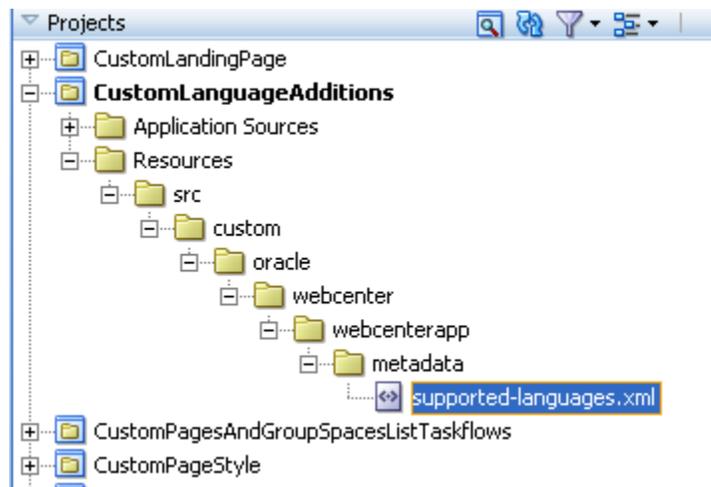
## Sample – Customized Language List

A sample customized language list is available at:

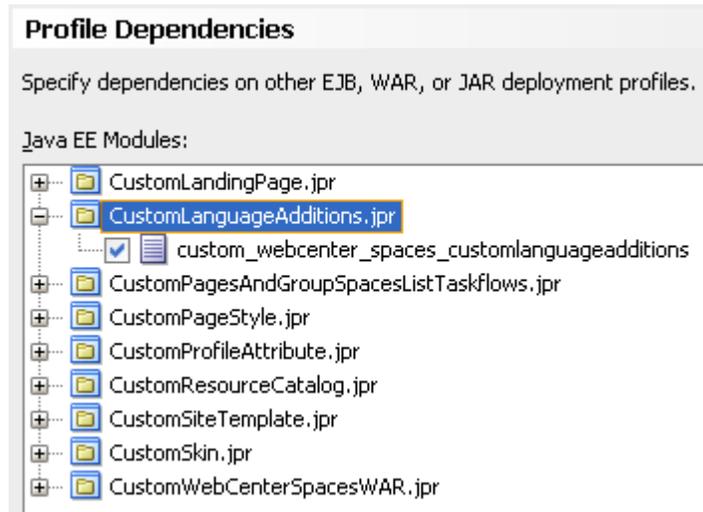
```
<Unzip_Dir>\ExtendWebCenterSpaces\CustomLanguageAdditions\src\
custom\oracle\webcenter\webcenterapp\metadata\supported-
languages.xml
```

## Customizing the Language List

1. In JDeveloper, open  
CustomLanguageAdditions\src\custom\oracle\webcenter\webcent  
erapp\metadata\supported-languages.xml:



2. Comment out the languages that you do not need.  
In the sample, all territory specific language variants are commented out.
3. Ensure that the **CustomLanguageAdditions** project is selected in the deployment profile:

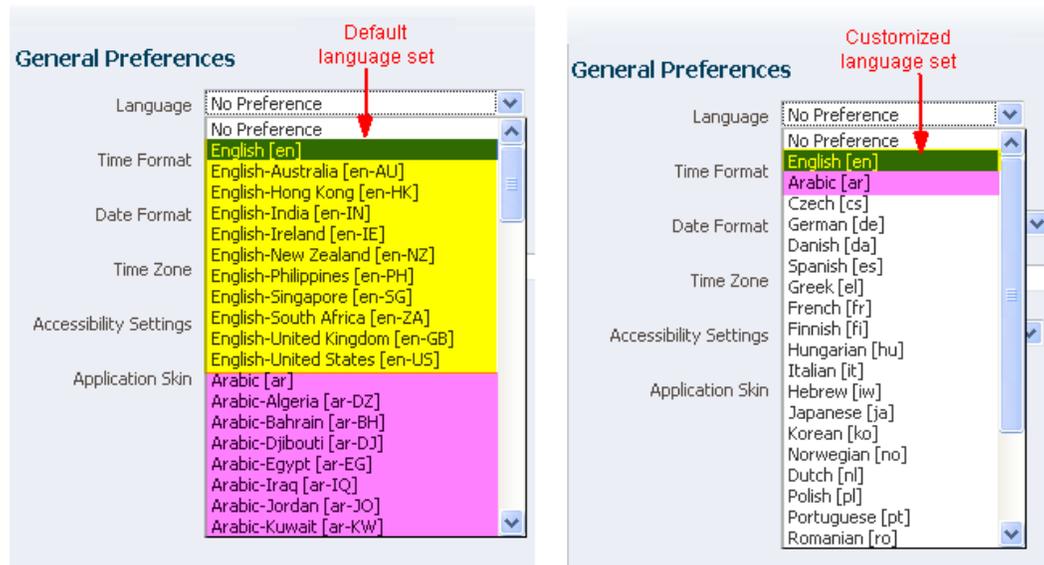


4. Deploy the customized language list.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

5. Login to WebCenter Spaces to verify that the correct languages display (check WebCenter Administration and user Preference screens).

For example, territory language variants are not available in the custom sample provided:



## Creating a Group Space Dashboard

If you want to create a dashboard in WebCenter Spaces, where a set of group spaces is always open by default, you need to designate them as *persistent*. Persistent group spaces always open in a predefined tab order, next to the personal space tab.

To make a group space persistent, you must add the following custom attributes to the group space:

- **alwaysOpen** – To designate a group space as persistent, specify that it is always open by setting the attribute `alwaysOpen=true`
- **orderInTopLevelTab** – To define the order in which persistent group spaces display (after the personal space tab), specify the numerical display order, for example, `orderInTopLevelTab=2`, `orderInTopLevelTab=3`, and so on.
- **allActionsToHide** – To hide actions, such as Close This Tab, for a persistent group space tab, set `allActionsToHide=true`. To display tab actions, set `allActionsToHide=false`.

In addition, you must deploy an additional JAR file to WebCenter Spaces, called `custom.webcenter.spaces.persistentspaces.jar`. This jar contains `customPhaseListener.java`, a custom Java class that enables this feature:

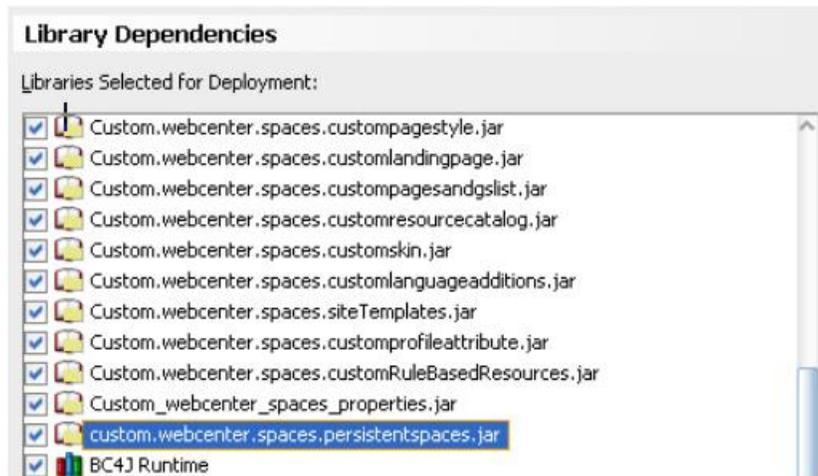
1. Open `ExtendWebCenterSpaces.jws` in JDeveloper.

`customPhaseListener.java` is located at  
`ExtendWebCenterSpaces\CustomPersistentSpacesTabs\Application Sources\custom.webcenter.spaces`

2. Right-click the **CustomWebCenterSpacesWAR** project, and select **Project Properties**.
3. Select **Deployment**, and then edit the deployment profile for **custom.webcenter.spaces.war**.
4. Select **Profile Dependencies** and select **custom\_webcenter\_spaces\_customPersistentSpacesTabs**:



5. Select **Library Dependencies** and select `custom.webcenter.spaces.persistentspaces.jar`.

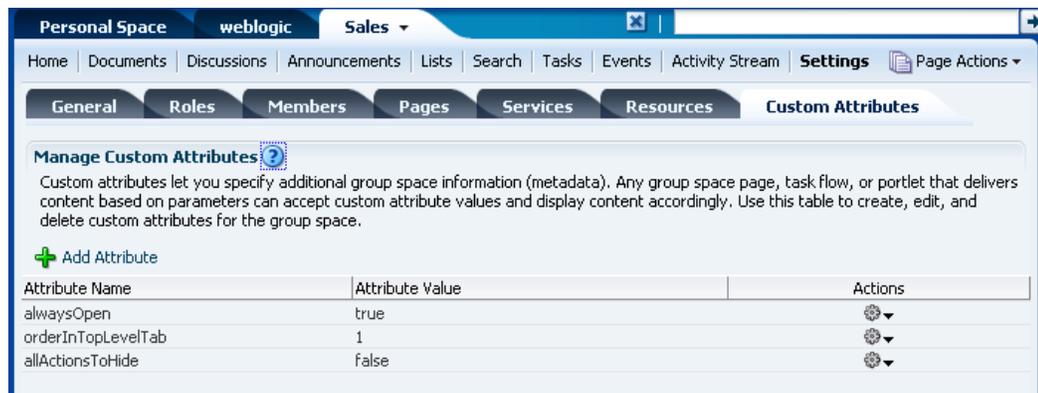


6. Deploy `custom.webcenter.spaces.war`.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

7. Login to WebCenter Spaces, and navigate to the *first* group space you want to display in your dashboard.
8. Open the group space **Settings >Custom Attribute** tab.

9. Create attributes with the following names and values:
  - o `alwaysOpen=true`
  - o `orderInTopLevelTab=1`
  - o `allActionsToHide=true` or `allActionsToHide=false`  
(depending on if you want to show the actions drop down in the group spaces tab)



10. Navigate to the next group space you want to display in the dashboard, add the same three custom attributes but this time, increment the `orderInTopLevelTab` attribute, for example, `orderInTopLevelTab=2`.
11. Repeat step 9 for each group space that you want to have automatically open
12. To verify your customizations, close all the group spaces in your dashboard, log out, log back in, and then check that the correct groups spaces open as expected and in the correct order.

**Note:** Ensure that the group spaces are not discoverable, that is, uncheck the **Discoverable** flag on the **Settings>General** tab.

## Using Custom Code - Creating Rule-Based Resources

If you want to implement some behavior in WebCenter Spaces that requires the use of custom code, you must deploy your customizations through the workspace `ExtendWebCenterSpaces.jws`.

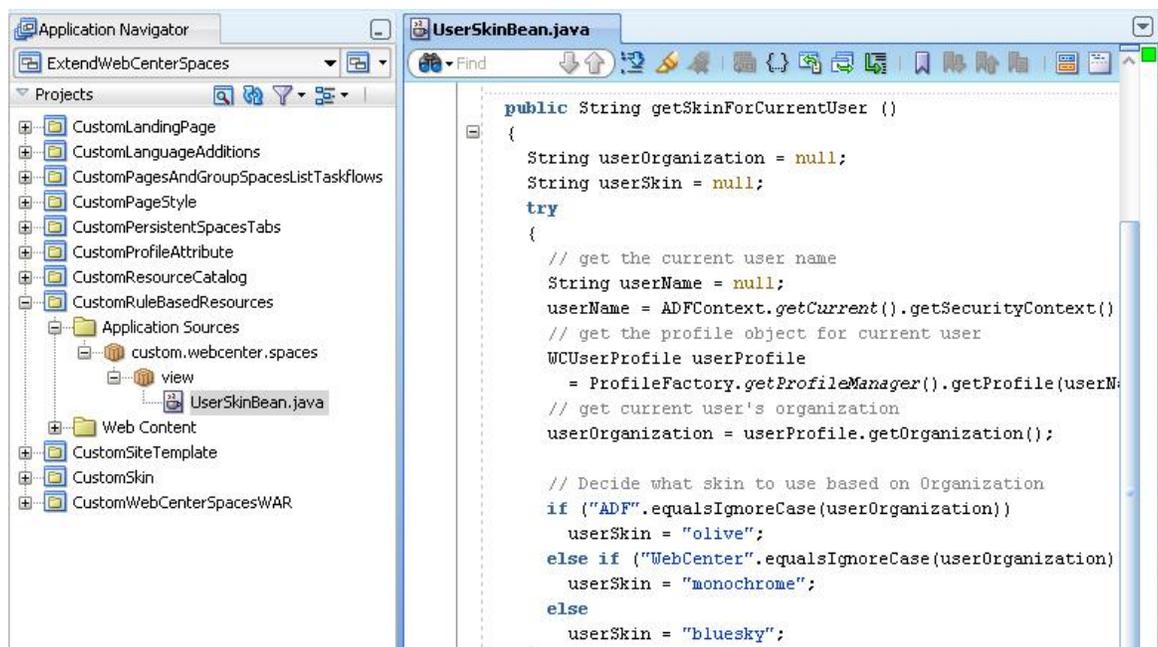
Sample custom code is provided in a project named **CustomRuleBasedResources** to demonstrate the custom code deployment process. The sample code changes the WebCenter Spaces skin based on custom logic in `UserSkinBean.java` where `getSkinForCurrentUser` returns the skin to be used for the currently logged in user

based on his organization. An 'olive' skin is returned if the organization is 'ADF', 'monochrome' if the organization is 'WebCenter', and 'bluesky' otherwise. You can write your own rules for returning an appropriate skin based on custom logic of your own, or deploy the sample as-is to review the custom code deployment process.

Alternatively, you can follow the same steps but deploy your own custom code.

1. Open `ExtendWebCenterSpaces.jws` in JDeveloper, and navigate to the project named **CustomRuleBasedResources**.
2. Open the sample custom Java code, located at **CustomRuleBasedResources**. `\Application Sources\custom.webcenter.spaces\view\UserSkinBean.java`.

Edit the sample skin rules if required.



3. Before deploying the sample custom code, ensure that the **CustomRuleBasedResources** project is selected in the deployment profile.
4. Build and deploy **custom.webcenter.spaces.war** with your custom code.

For details, see section [Building and Deploying a Customized WebCenter Spaces .WAR](#).

5. Login into WebCenter Spaces with administrative privileges.
6. Open WebCenter Spaces Administration, navigate to the General tab and change the Skin.

This step is important because it creates `webcenter-config.xml.xml` required in the next step.

7. Update `webcenter-config.xml.xml`:

- a. Use the `exportMetadata` WLST command to export the file to a temporary location:

- i. Navigate to `WC_ORACLE_HOME/common/bin` and run `wlst.sh`.

- ii. Connect to the Administration Server for WebCenter Spaces. For example, `connect('weblogic','mypassword','myhost.example.com:7001')`

- iii. Run `exportMetadata` WLST command to export the updated file. For example:

```
exportMetadata(application='webcenter',
server='WLS_Spaces',
toLocation='/tmp/tmp', docs='/oracle/webcenter/webcenterapp/metadata/mdssys/cust/site/webcenter/webcenter-config.xml.xml')
```

- b. In another window, open `webcenter-config.xml.xml` and edit the `<skin>` node as follows:

```
<skin
xmlns="http://xmlns.oracle.com/webcenter/webcenterapp">#{userSkinBean.skinForCurrentUser}</skin>
```

- c. Use the `importMetadata` WLST command to import the updated file:

```
importMetadata(application='webcenter', server='WLS_Spaces', fromLocation='/tmp/tmp/', docs='/oracle/webcenter/webcenterapp/metadata/mdssys/cust/site/webcenter/webcenter-config.xml.xml')
```

8. Login in to WebCenter Spaces, and test the custom code.

For example, to test the sample code:

- a. Click the User-Profile tab (next to Personal Space) and display the Profile screen.
- b. Edit the properties and change the organization to **'ADF'**.

Confirm that the 'olive' skin is applied. You may need to refresh the page, click the logo or the personal space tab.

## Conclusion

This document describes how to extend and customize WebCenter Spaces to more readily meet the needs of your user base. For more information on using WebCenter Spaces, see the User's Guide for Oracle WebCenter Spaces (on Oracle Technology Network at [http://download.oracle.com/docs/cd/E14571\\_01/webcenter.1111/e10149/toc.htm](http://download.oracle.com/docs/cd/E14571_01/webcenter.1111/e10149/toc.htm)).



Extending WebCenter Spaces (11.1.1.2.0 and  
11.1.1.3.0)

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