

Strategy Guide for Upgrading WebSphere Portlet Factory and Projects

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This article is a strategy guide to assist in the upgrade from a previous version to a new version of IBM® WebSphere® Portlet Factory (hereafter called WebSphere Portlet Factory).

This article is one in a collection of articles and samples that illustrate techniques for implementing and developing with WebSphere Portlet Factory. See the [WebSphere Portlet Factory Product Documentation](#) page for a complete list of these.

Prerequisites

You should have a basic familiarity with WebSphere Portlet Factory and be able to install the product and deploy projects.

Introduction

The WebSphere Portlet Factory goes through a continual process of improvements to meet advances in technology, new environments, changing requirements, and enhancements to the product. As each new release of WebSphere Portlet Factory addresses these improvements, there is an upgrade path for our existing users to embrace the new features WebSphere Portlet Factory's technology has to offer. This guide will provide a strategy to upgrade WebSphere Portlet Factory from release to release.

WebSphere Portlet Factory is used in many different configurations where upgrading to a new release may not be the same for each user. An example is where a previous version of WebSphere Portlet Factory may be different between users who are both upgrading to the same new version. Another is users who are upgrading projects deployed to different Application servers and Portal Server versions. This guide will advise on an approach for users to complete an upgrade of WebSphere Portlet Factory and deploy existing project(s) with the upgraded version of WebSphere Portlet Factory.

This guide will use upgrading WebSphere Portlet Factory 6.0.2.3 to WebSphere Portlet Factory 6.1.2 as a specific example, but is not limited to these specific versions. This guide will also review how to apply a Fixpack or Testfix after an upgrade.

Best Practices

For every release of WebSphere Portlet Factory a new template project is created with install. This template project will be used to refresh each existing project with updated WebSphere Portlet Factory files. For WebSphere Portlet Factory version 6.1.2 the

template project is located in *C:\ibm\WebSphere Portlet Factory\Designer\FeatureSets\Web-App_6.1.2\Templates\Project*. Any feature sets you have added to your project will also be refreshed. Feature sets are located in *C:\ibm\WebSphere Portlet Factory\Designer\FeatureSets\Web-App_6.1.2\Packages*. During development a manifest is created and updated of the modified WebSphere Portlet Factory files. The manifest is located in */WebContent/WEB-INF/manifests* in each project. Upgrading a project version you will be prompted to update modified WebSphere Portlet Factory files in your project. The new version of WebSphere Portlet Factory files will be applied to your project.

In general WebSphere Portlet Factory is designed so that you will very rarely need to modify WebSphere Portlet Factory product files. For example, when you need to set an execution property that is available in the supplied *bowstreet.properties* file, you should never modify that file; instead, you should specify the properties you want to override in an “*override.properties*” file that you create in the same *WEB-INF/config* folder. As another example, if you want to customize one of the supplied HTML template files, the best practice is to create a copy and make your modifications to the new file and then point to your modified copy from builder’s inputs where you want to use the template. There are a few rare instances when modifying a product-supplied file is necessary. One example is the *log4j.properties* file which can be modified to change logging properties.

Backing up your project

Before upgrading it is recommended to backup your project(s). This practice is common sense in any creation, edition, and development of computer files and is no different for WebSphere Portlet Factory projects. Your project contains all files necessary to your development and deployment efforts. During upgrade of a project you may be asked to refresh your project based on modified files. A prompt will ask whether you would to overwrite modified files in your project. Backings up your project before upgrade will ensure you have a copy of the original project in case you overwrite a file(s) accidentally which may cause issues in your upgraded project. You can then use the backup copy of your project to help determine and recover the changes in modified files.

Export Archive File

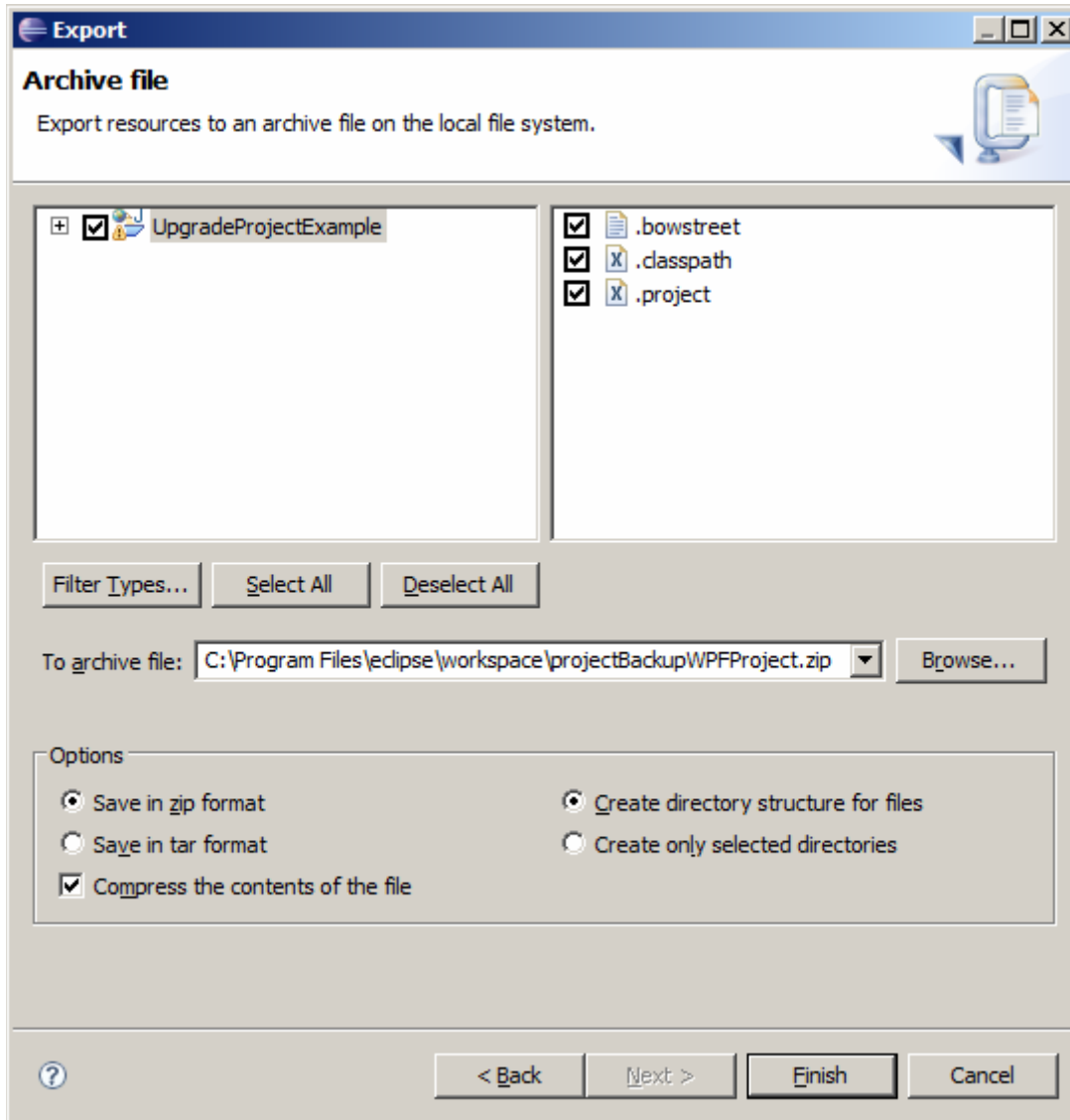
To backup your entire project use the *Export -> Archive File*. Using this tool will collect all files in your project and make a complete backup of the project contents.

By default the entire project is selected. For this demonstration it recommended to select the entire project. It is not advisable to import this zip file in its entirety into a new, different, or upgraded project. This backup copy of your project contains files specific to that project’s environment and is only used to restore this specific project in its original configuration. When an upgraded project or a different project imports this archive, several files that are specific to the projects environment will be overwritten causing errors. The backup copy is a reference to the original project prior to upgrade.

1. right click on a project your backing up and select *Refresh*

NOTE refreshing the project will ensure all project files are in sync with the file system.

2. right click on the project and select *Export -> Export...*
3. expand the General section in the **Export** dialog
4. select *Archive File*
5. click the **Next** button



6. select the entire project contents (by default they entire project should be selected)
7. browse and provide a name for the *To archive file:*
8. in the Options frame select
 - *Save in zip format*
 - *Compress the contents of the file*
 - *Create directory structure for the files*
9. click the **Finish** when complete

Copy workspace

You can copy your workspace to a new location to backup its contents. The *Import* feature will not be available as demonstrated in this document, but it is computer savvy to have more than one backup of your files.

Upgrade WebSphere Portlet Factory 6.0.2.3 to WebSphere Portlet Factory 6.1.2

The instructions to upgrade WebSphere Portlet Factory are provided in the Getting Started Guide (*Start -> Programs -> IBM WebSphere Portlet Factory -> Documentation*). It is recommended to always install a new version of eclipse provided with the WebSphere Portlet Factory installation. Eclipse versions and project upgrades are two separate steps.

The install wizard guides you through the install and places the new version of WebSphere Portlet Factory 6.1.2 into a different location on the file system than WebSphere Portlet Factory 6.0.2.3. If you are installing a version of WebSphere Portlet Factory other than what this guide is using, it is good practice to make sure your newer version of WebSphere Portlet Factory installs into a separate location on the file system than the previous version of WebSphere Portlet Factory. You do not want to install different versions of WebSphere Portlet Factory into the same location. It is possible to install the plug-ins into the same location and manually update the plug-ins, but you will be using eclipse manage updates feature to accomplish this task which is not covered in the scope of this document.

Product Upgrade

1. run the installation program to install WebSphere Portlet Factory
2. complete the installation of WebSphere Portlet Factory based on the instructions in the **Product Installation Guide (install.htm)** located with your installation source.
3. once complete start WebSphere Portlet Factory with the `-clean` parameter

NOTE the `-clean` parameter clears cached data. Start Eclipse with this option to clear startup errors after install, update, or using a shared configuration. Right click on the WebSphere Portlet Factory Designer shortcut and add the `-clean` parameter to the Designer Properties. Example `C:\IBM\Portlet Factory\Eclipse\eclipse.exe -clean -perspective com.bowstreet.designer.model.ModelPerspective -vmargs -Xmx512m`

9. click **OK** twice to close each dialog

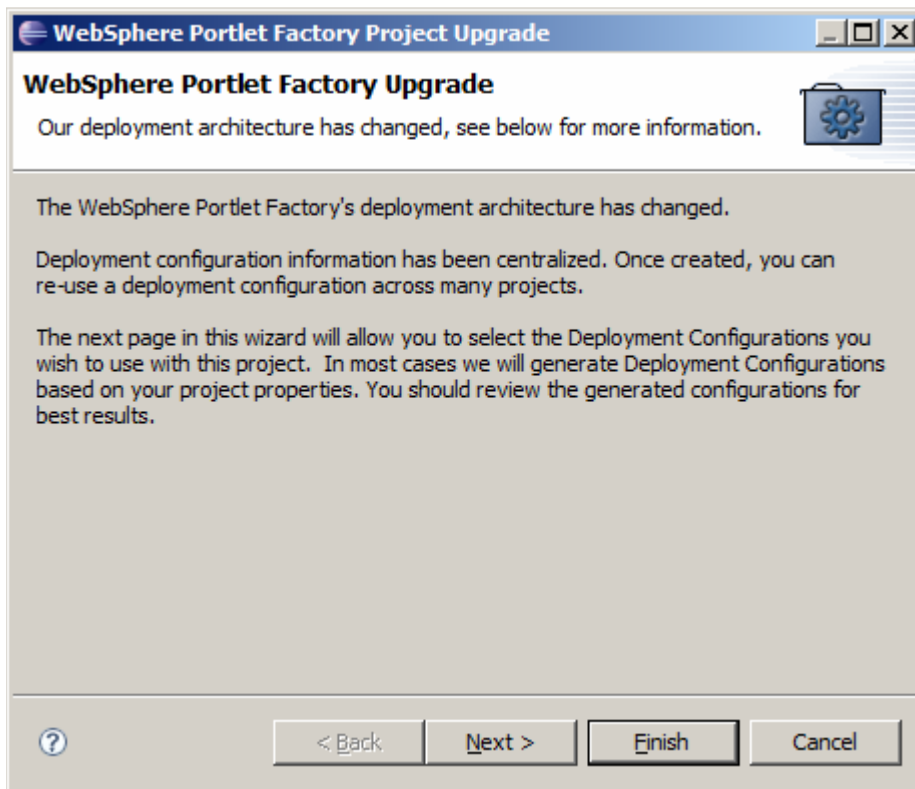
Project Upgrade

At this point you should have a new version of WebSphere Portlet Factory, but your project has not been upgraded to the new version.

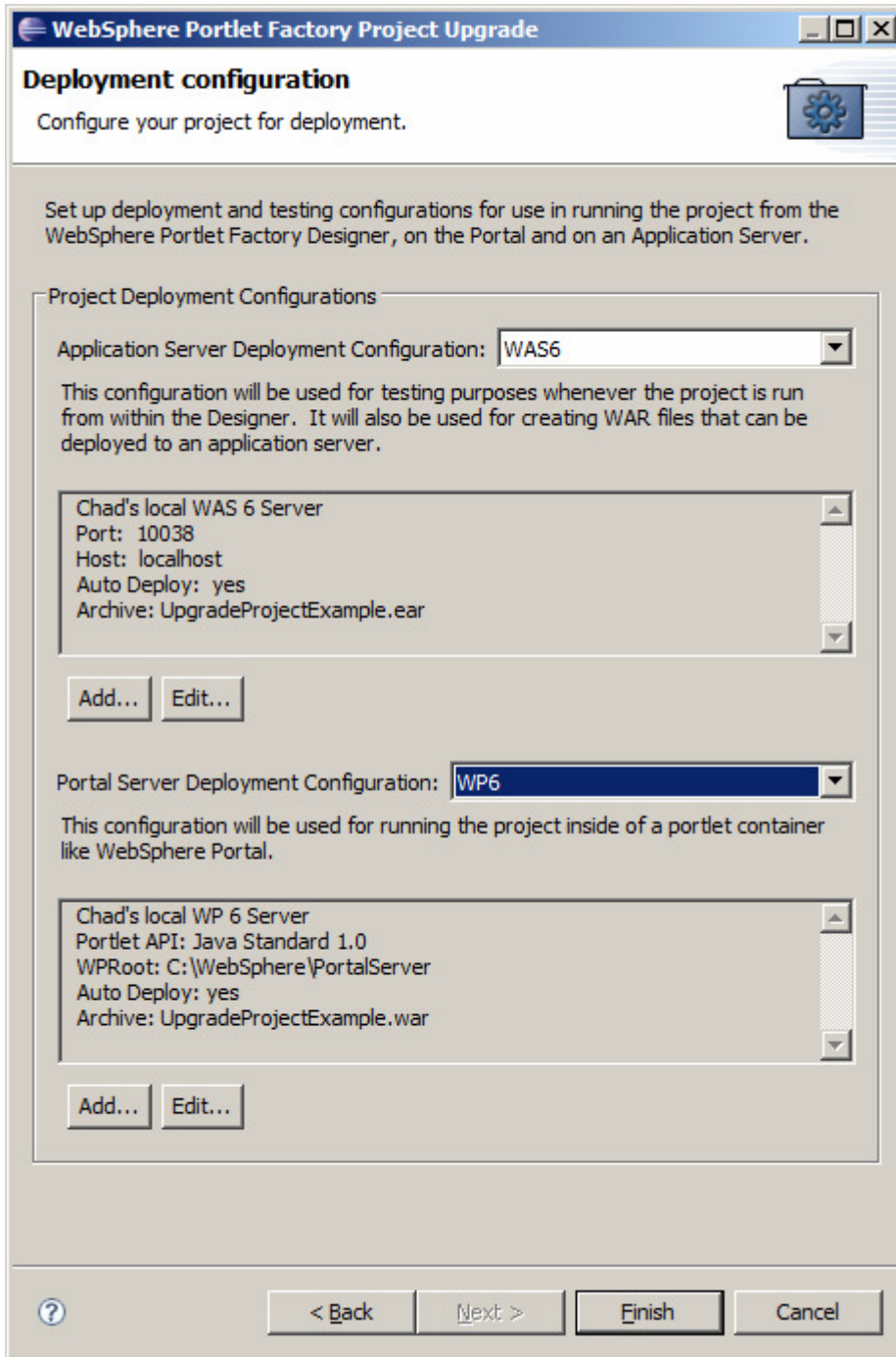
The project should display an error in the Problems view. The error indicates *Project version does not match Designer version. You need to upgrade the project.*

1. right click on the project
2. select *Upgrade Project Version*

NOTE this action will be required for each project in your workspace.



3. review the WebSphere Portlet Factory Project Upgrade dialog and click **Next**

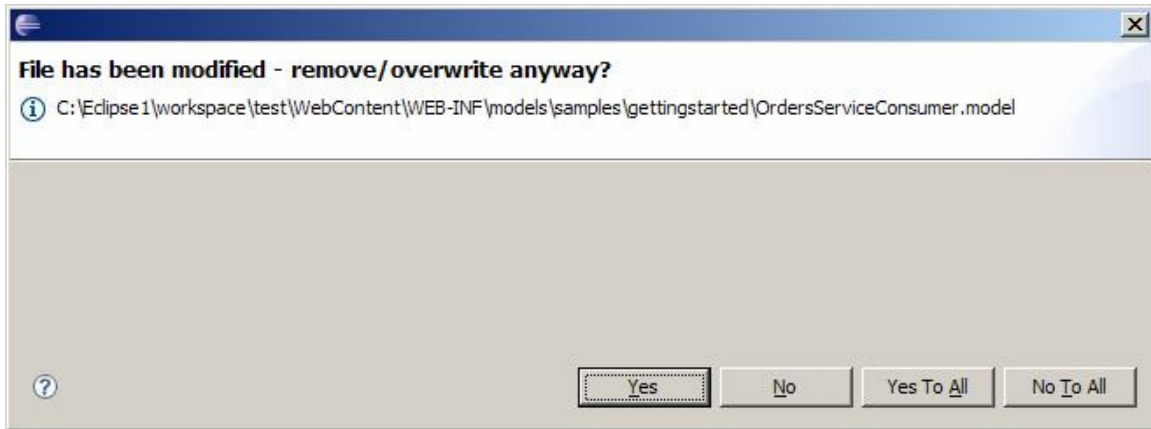


You have an opportunity to change the deployment of the project during upgrade. By default the deployment configurations used for that specific project will be reused. In the event the deployment configurations changed you can select, add, or edit the deployment configurations.

When you click the **Finish** button the project will be refreshed with updated files from the WebSphere Portlet Factory 6.1.2 release, and then the project can be redeployed.

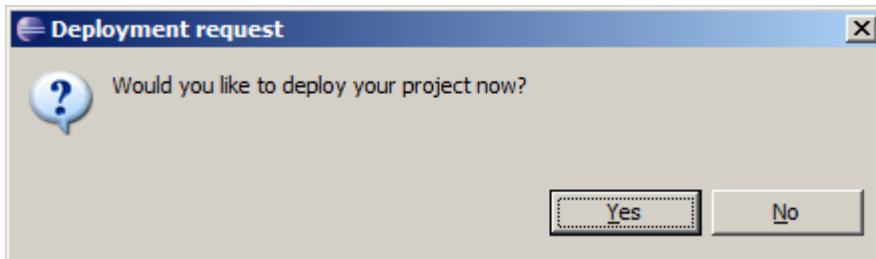
4. click the **Finish** button

It is recommended not to select the **Yes To All** button and highly recommended never to select the **No To All** button. When prompted to remove/overwrite modified files click the **Yes** button for each file. While reviewing each file to remove/overwrite collect a list of all modified files and determine which files contains changes you or your development team made.



5. write down each file name that has been modified in your project. Note which files you modified.
6. for each file select the **Yes** button to remove/overwrite

After all modified files have been processed and a list collected of the modified files, a **Deployment request** dialog will request deployment of the upgraded project.



7. Click the **Yes** or **No** button to deploy the upgraded project

WebSphere Portlet Factory and a project contained in the workspace have now been upgraded. For additional projects in the workspace, repeat the above process for each project.

Before upgrading more than one project it is recommended to complete an upgrade of a single test project before continuing. If you are working in a team environment where several users will be upgrading projects, this is an opportunity to review the list of the modified files with your team to determine which files you modified. Upgrade one project and verify there are no issues before continuing to upgrade all projects.

Resource Log view

The Resource Log view displays a list of files that have been removed, modified, and added to a project.

1. select *Window -> Show View -> Resource Log*

Read more about the Resource Log view in help. You can access this help topic under *IBM WebSphere Portlet Factory Designer -> Overview of IBM WebSphere Portlet Factory Designer -> The IBM WebSphere Portlet Factory Designer Interface -> The Resource Log View*.

Correcting problems with upgraded projects

In some cases you may have overwritten files in your project during upgrade where the backup file contains changes you made before upgrade. If there are instances where you changed a WebSphere Portlet Factory file before upgrading, and the upgraded file also contains WebSphere Portlet Factory changes, you have to separate and isolate those changes between your backup files and the upgraded files. If this occurs manually merge the changes between the two files.

To avoid this issue, you should always try to avoid directly editing WebSphere Portlet Factory files. Instead, you should create a copy of the file you want to edit, and edit only the copy. There are only a few instances where it should be necessary to directly edit WebSphere Portlet Factory files.

Merge changes

1. identify the modified files that are causing issues in your project
2. compare the file from the upgraded project to your backup of the original project

NOTE there are a variety of tools available to compare files. This article does not discuss different tools or how to use them. Use the tools available to you.

3. manually merge the changes into the file located in the upgraded project
4. test the changes

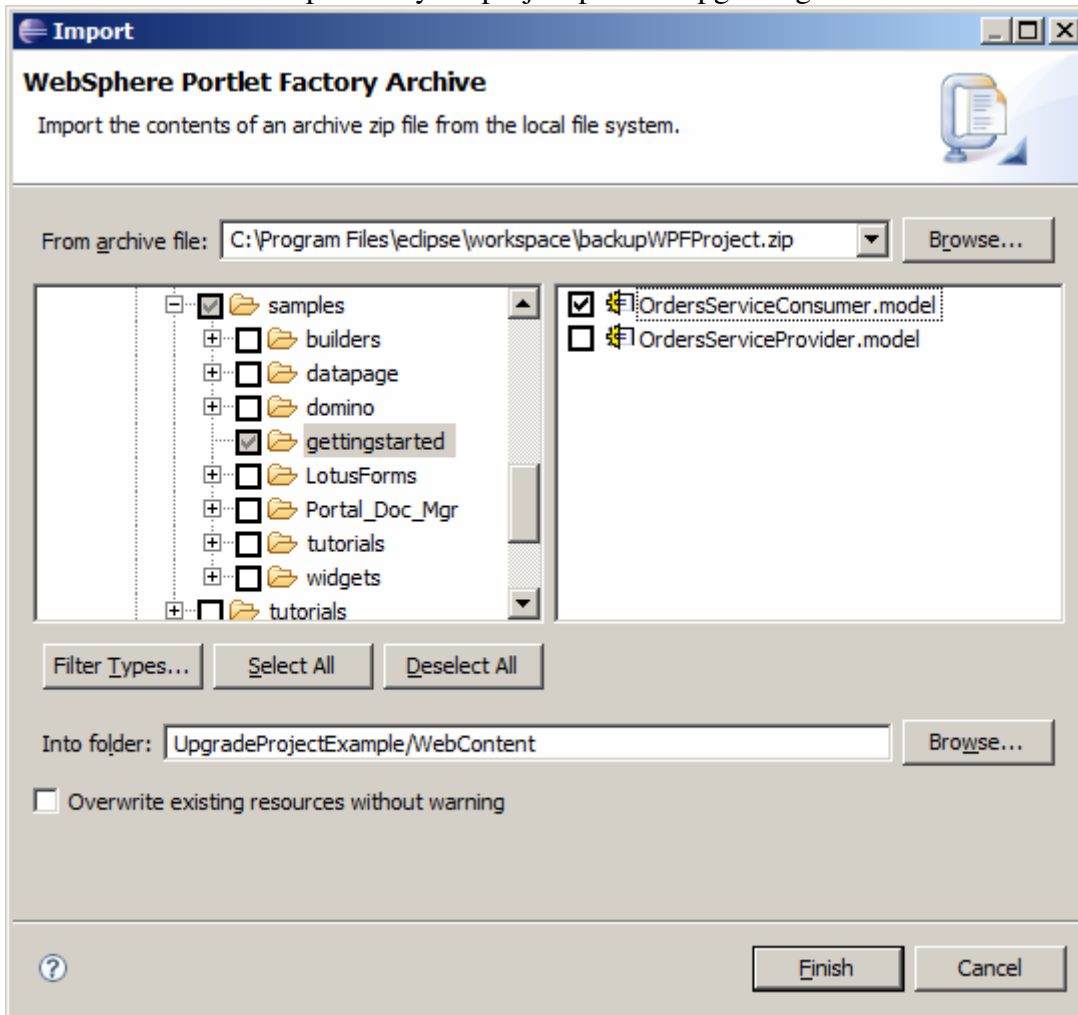
Once all the files have been corrected, your project is modified with all new WebSphere Portlet Factory files and your changes from the previous version.

Overwrite changes

In some cases you can simply overwrite files from your backup copy. Files like `log4j.properties` or a model from a feature set are overwritten to the WebSphere Portlet Factory defaults during upgrade.

1. identify the modified files that are causing issues in your project

2. select *Import* -> *WebSphere Portlet Factory Archive*
3. in the **Import** WebSphere Portlet Factory Archive dialog click the **Browse** button
4. select the backup file of your project prior to upgrading



5. select only the files you wish to restore
6. click the **Finish** button
7. when prompted to overwrite the file, click **Yes**

Once all the files have been restored, your project is modified with updated WebSphere Portlet Factory files and your files from the previous version.

Fixpack or Testfix installation

Installing a Fixpack or Testfix requires the same process as an upgrade. However, Fixpacks and Testfixes update specific files located in the plug-ins, Packages, and/or Templates directory of your current WebSphere Portlet Factory install, and are not a complete upgrade. The difference between a Fixpack and Testfix are; a Fixpack is a combination of all cumulative Fixpacks and Testfixes of that specific version, while a Testfix is only a specific change to that WebSphere Portlet Factory version.

After applying a Fixpack or Testfix the next time you start WebSphere Portlet Factory the new files are applied to the WebSphere Portlet Factory product. Projects in your workspace will need to be upgraded.

1. make a backup copy of your project
2. complete the installation based on the readme file provided with the Fixpack or Testfix
3. start WebSphere Portlet Factory with the -clean parameter
4. select your workspace
5. verify the WebSphere Portlet Factory version is the new applied Fixpack or Testfix version
6. right click on the project and select *Upgrade Project Version*
7. verify the project is upgraded with the specified fixes and contains the correct changes

Additional considerations

Upgrading portlets to the Java Portlet Standard API

As of WebSphere Portal 6, there is support for Java Portlet Standard API for WebSphere portlets. While portlets designed for use in previous version of WebSphere Portal and built using the deprecated WebSphere Native portlet API continue to run in WebSphere Portal 6, it is recommended that any new portlets be built using the Java Portlet Standard API.

You can easily upgrade portlets built using the deprecated WebSphere Native Portlet API to the Java Portlet Standard API. To do so, you must modify the project that contains the portlet models.

NOTE If you have already upgraded the project, you can switch to Java Portlet Standard API by switching the project to a Java Portlet Standard API Portal deploy configuration by uninstalling the old WAR as described in the following steps and updating the project to use the Java Portlet Standard API deploy configuration. Redeploy when prompted.

To upgrade a portlet built in a previous version of the WebSphere Portlet Factory to use the new Java Portlet Standard API, perform the following steps:

1. Load the project containing the portlet model into the WebSphere Portlet Factory Designer.
2. Select the project and right click and select **Upgrade project version**.
3. Using the WebSphere Portlet Administration tool, remove the old portlet WAR file from the WebSphere Portal server. (If the project has already been upgraded, switch the project to a Java Portlet Standard API Portal deploy configuration, then update the project to use the Java Portlet Standard API deploy configuration and redeploy when prompted.)
4. In WebSphere Portlet Factory Designer, use the **Project Deployment Configurations** dialog to deploy the updated portlet WAR file to the WebSphere Portal server.

5. Use the WebSphere Administration tool to place the updated portlets on WebSphere Portal pages.

Resources

WebSphere WebSphere Portlet Factory product documentation

<http://www.ibm.com/developerworks/websphere/zones/portal/portletfactory/proddoc.html>

WebSphere WebSphere Portlet Factory support

<http://www.ibm.com/software/genservers/portletfactory/support/>

Developer Works forums

http://www.ibm.com/developerworks/forums/wsdd_forums.jsp

Lotus Sandbox

<http://www-10.lotus.com/ldd/sandbox.nsf/DownloadPage?OpenForm>

WebSphere WebSphere Portlet Factory Best Practice Samples

<http://www.ibm.com/developerworks/wikis/display/PortletFactoryID/Samples+and+techniques>

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