



IBM Software Group

WebSphere® Commerce V6.0 feature pack 4

Management Center customization migration



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This presentation covers Management Center customization migration.

Agenda

- Who needs to consider migration
- Utilities involved in migration
- How to use the comparison utility to migrate OpenLaszlo files
- General steps for migrating from toolkit to server



This presentation discusses when you need to consider migration and what tools are available to help you with migration. It also gives you the detailed steps to perform the migration.

Who needs to migrate

Current level of Management Center	Customizations implemented	Migration step required	After enabling Management Center Feature Pack 4
Management Center is not enabled	Not applicable	No	Management Center is at the Feature Pack 4 level
Feature Pack 3	Not applicable	No	Management Center is at the Feature Pack 4 level
Feature Pack 3.0.1	No	No	Management Center is at the Feature Pack 4 level
Feature Pack 3.0.1	Yes	Yes	Management Center is migrated to the Feature Pack 4 level

The ability to customize Management Center is supported in feature pack 3.0.1. WebSphere Commerce feature pack 4 delivers new Management Center function and fixes to enhance your Management Center environment. If you installed feature pack 3.0.1 and have made customizations on the top of it, you need to consider migrating your customizations to the feature pack 4 level.

Migration utilities

- Migration script (enableFeature)
 - ▶ Built into the feature enable script
 - ▶ Migrates all assets except **customized** OpenLaszlo files
- Comparison utility
 - ▶ Assists you in merging customizations **manually**
 - ▶ Eclipse plug-ins
 - ▶ Shows the changes in customizable OpenLaszlo files



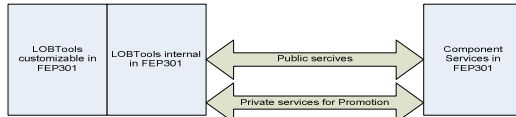
The whole migration is done with the help of two utilities: a migration script and a comparison utility.

The migration script is run as part of the **enableFeature** script to enable the Management Center feature. This script will migrate all assets except the customized OpenLaszlo files, which are the OpenLaszlo files not in the **restricted** folders.

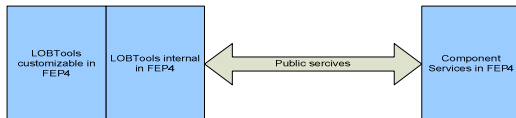
After running the migration script, the comparison utility can be used to help you to manually migrate OpenLaszlo files customized in feature pack 3.0.1 to the feature pack 4 level. This comparison utility is implemented by Eclipse plug-ins.

Component diagram view of migration

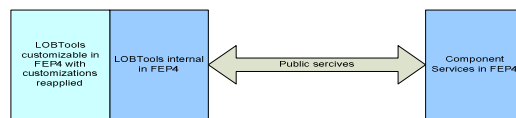
- Before migration



- After running migration script



- Re-apply customizations made in Feature Pack 3.0.1 using comparison utility



Before migration, the Management Center Web module LOBTools in feature pack 3.0.1 communicates with component services in feature pack 3.0.1. The component services for promotion are private.

The migration script replaces the feature pack 3.0.1 LOBTools Web module with assets in feature pack 4. The private services for promotion are replaced by a new public implementation for promotion. In feature pack 4 all component services are public.

You can re-apply the customizations you made to OpenLaszlo files in feature pack 3.0.1 using the comparison utility.

Steps to migrate management center

1. Install feature pack 4 package on WebSphere Commerce toolkit
2. Invoke the comparison utility. The comparison utility displays changes to customizable OpenLaszlo files
3. Identify the feature pack 3.0.1 customizations and plan for the project migration
4. Enable feature pack 4 in WebSphere Commerce developer
5. Manually reapply customizations to feature pack 4 project with the help of the comparison utility
6. Check migration progress using the comparison utility
7. Repeat steps 5 and 6 until migration is complete
8. Test the merged management center on the toolkit test server
9. Deploy the merged project to the server environment



This slide shows the overall steps to migrate the Management Center Web module from feature pack 3.0.1 to feature pack 4.

You first need to install feature pack 4 to add the comparison utility plug-ins to your development environment. Then you launch the comparison utility and use it to identify the customizations you made in feature pack 3.0.1. Next, you enable the Management Center feature to begin migrating customized assets to the feature pack 4 level. You need to re-apply the customizations made to OpenLaszlo files on top of the feature pack 4 code. Last you need to test the merged project on the toolkit testing server and deploy it to the production server.

More detailed information about these steps is discussed in later slides.

What the migration script does

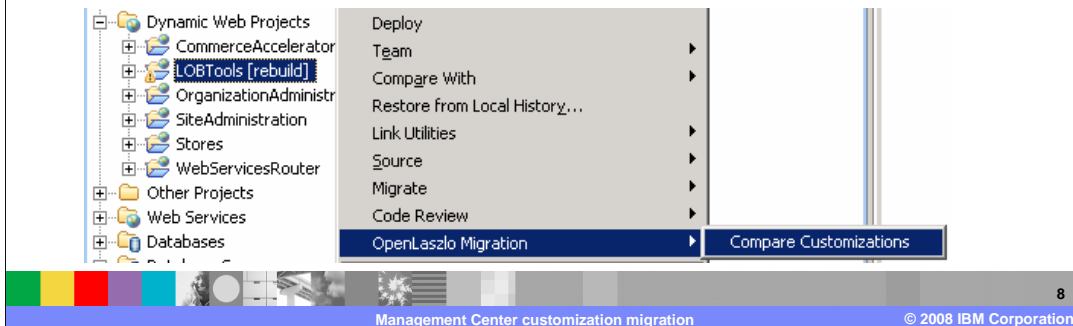
- Steps below only happen when you enable feature pack 4 on top of feature pack 3.0.1
 - ▶ Backup **LOBTools** project to directory
WCDE_installdir\components\management-center\backup
 - ▶ Replace **OpenLaszlo** files in feature pack 3.0.1 with the copy in feature pack 4, keep the new **OpenLaszlo** files created in feature pack 3.0.1
 - ▶ Overwrite **Web application** in feature pack 3.0.1 with Web application in feature pack 4, except for /WEB-INF/struts-extension.xml file. The customized copy is preserved
 - Web application: client libraries and related assets including JavaServer pages files, images, and configuration files
 - ▶ Replace all standard resource bundle files in feature pack 3.0.1 with those in feature pack 4. Custom properties files are preserved
 - ▶ All XML configuration files in custom directories are preserved



If you install feature pack 4 on top of feature pack 3.0.1, when you run the enable feature script to enable the Management Center the migration script is invoked. The migration script first creates a copy of the LOBTools project in a backup directory. OpenLaszlo source files in feature pack 3.0.1 are then replaced with the copy in feature pack 4. Any new OpenLaszlo files that you created in feature pack 3.0.1 are kept. Next, all feature pack 3.0.1 Web application files are overwritten with Web application files in feature pack 4. Customized Web application files are preserved. Standard bundle files in feature pack 3.0.1 are also replaced by the ones in feature pack 4. Custom bundle files are preserved as are XML files in custom directories.

Launch the comparison utility

- To launch the comparison utility
 - ▶ Select **LOBTools** project. From menu bar, select **window -> show view -> others -> OpenLaszlo -> OpenLaszlo migration results**
 - ▶ Select **LOBTools** project. From pop-up menu of project explorer view, select **OpenLaszlo migration -> compare customizations**



After running the migration script, the next migration step is to use comparison utility to migrate the customized OpenLaszlo files.

To launch the comparison utility, you select the LOBTools Web project in the project explorer view. You can either launch the utility from the menu bar or the pop-up menu by following the path given in this slide.

OpenLaszlo migration results view

- Two new controllers
 - Delta to display
 - Migration status filters

Delta between Feature Pack 3.0.1 base and Feature Pack 3.0.1 customized
 Delta between Feature Pack 4 base and Feature Pack 4 current

Delta to display

Migration status filters

- All
- Migrated
- New

Result table

controller

Filename	Status	Change Type
/LOBTools/WebContent/WEB-INF/src/lzx/mycompany/extCatalogManagementResourceBundle.lzx	Migrated	Add file
/LOBTools/WebContent/WEB-INF/src/lzx/mycompany/MyComAdvancedSearch.lzx	Migrated	Add file

Management Center customization migration © 2008 IBM Corporation

The OpenLaszlo migration results view displays after you launch the comparison utility. There are two new controllers added in the view: **Delta to display** and **migration status filters**.

There are two options in the **delta to display** controller. The **delta between feature pack 3.0.1 base and feature pack 3.0.1 customized** option can be used to identify the customizations you made in the feature pack 3.0.1 code. The **delta between feature pack 4 base and feature pack 4 current** option can help you confirm which customizations you have migrated into the feature pack 4 code. This option is selected by default when you first launch the comparison utility.

The **migration status filters** options depend on the option you selected in the **delta to display** controller. These options allow you to view **all** customized files, **migrated** or not migrated files, and the **new** files that you created in feature pack 4 code.

Delta details dialog

The screenshot shows the 'Delta Details' dialog box with the following information:

- File:** /LOBTools/WebContent/WEB-INF/src/lzx/commerce/catalog/searchDefinitions/FindAllCatalogEntriesSearchDefinition.lzx
- File Version:** Feature Pack 3.0.1
- Line:** 22
- Change Type:** Modify attribute
- Attribute:** advancedSearchContentClass
- Status:** Not Migrated

The XML code in the dialog is as follows:

```
<class name="catFindAllCatalogEntriesSearchDefinition" extends="wcfSearchDefinition" searchType="FindAllCatalogEntries"
displayName="{catalogResources.FindAllCatalogEntriesSearchDefinition_DisplayName.string}" isDefault="true"
isClass="catCatalogEntrySearchDef" isTitle="{catalogResources.catalogGroupChildTitle.string}"
advancedSearchContentClass="myComAllCatalogEntriesAdvancedSearchContent">
  <wcfSearchService name="FindAllCatalogEntries" url="{com.FindCatalogEntries-All}">
    <wcfServiceParam name="storeId"/>
    <wcfServiceParam>
      <wcfServiceParam name="masterCatalogId"/>
    </wcfServiceParam>
    </wcfSearchService>
  </class>
under parent
</library></library>
```

Below the dialog is the 'OpenLaszlo Migration Results' table:

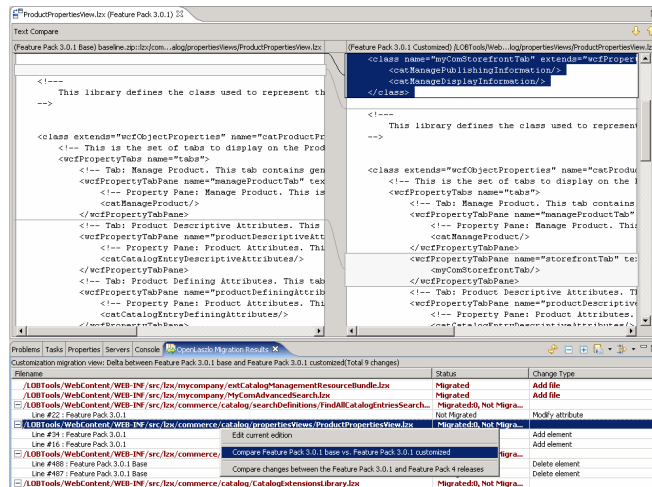
Filename	Status	Change Type
/LOBTools/WebContent/WEB-INF/src/lzx/mycompany/exitCatalogManagementResourceBundle.lzx	Migrated	Add file
/LOBTools/WebContent/WEB-INF/src/lzx/mycompany/MyComAdvancedSearch.lzx	Migrated	Add file
/LOBTools/WebContent/WEB-INF/src/lzx/commerce/catalog/searchDefinitions/FindAllCatalogEntriesSearch...	Migrated, Not Migra...	Modify attribute
Line #22 : Feature Pack 3.0.1	Not Migrated	Modify attribute
/LOBTools/WebContent/WEB-INF/src/lzx/commerce/catalog/searchDefinitions/FindAllCatalogEntriesSearch...	Migrated, Not Migra...	Modify attribute
Line #24 : Feature Pack 3.0.1	Not Migrated	Add element
Line #16 : Feature Pack 3.0.1	Not Migrated	Add element
Compare Feature Pack 3.0.1 base vs. Feature Pack 3.0.1 customized	Not Migrated	Add element
Compare changes between the Feature Pack 3.0.1 and Feature Pack 4 releases	Migrated, Not Migra...	Add element
Line #488 : Feature Pack 3.0.1 Base	Not Migrated	Delete element
Line #407 : Feature Pack 3.0.1 Base	Not Migrated	Delete element
/LOBTools/WebContent/WEB-INF/src/lzx/commerce/catalog/CatalogExtensionsLibrary.lzx	Migrated, Not Migra...	Delete element
Line #17 : Feature Pack 3.0.1	Not Migrated	Add element
Line #18 : Feature Pack 3.0.1	Not Migrated	Add element

The delta details dialog allows you to view the customization detail of a certain element starting from the line number displayed.

To launch the delta details dialog, double click an element under a file name in the OpenLaszlo migration results table or right click that element and select **details** from the pop-up menu.

Compare editor

- Two-way comparison
 - ▶ Feature pack 3.0.1 base code versus feature pack 3.0.1 customized code
 - ▶ Feature pack 3.0.1 base code versus feature pack 4 base code
 - ▶ Feature pack 4 base versus feature pack 4 customized code
- Read only
 - ▶ Modify customizable files in OpenLaszlo editor



The compare editor is used for two-way comparison. Depending on what option you selected in the delta to display controller, you can do two of three comparisons listed below:

Feature pack 3.0.1 base code versus feature pack 3.0.1 customized code

Feature pack 3.0.1 base code versus feature pack 4 base code

Feature pack 4 base versus feature pack 4 customized code

The compare editor can be launched by selecting a file from the **OpenLaszlo migration results** view and then selecting a comparison option from the pop-up menu.

The compare editor is read-only. You should use the OpenLaszlo editor to edit the OpenLaszlo source code.

Enable line number in compare editor

- By default, line numbers do not display in Eclipse compare editor
- Steps to enable line numbers
 - ▶ Start WebSphere Commerce developer
 - ▶ Click **window > preferences**
 - ▶ Expand workbench and select **Compare/Patch**
 - ▶ Select **show additional compare information in the status line**



The compare editor does not display line numbers by default. The line numbers assist you in determining what location within the file has changed. You can follow the steps shown on this slide to enable line numbers.

Steps to migrate OpenLaszlo files

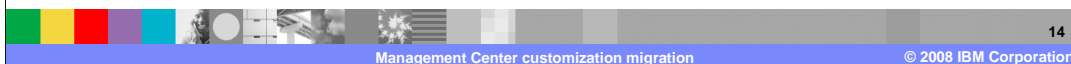
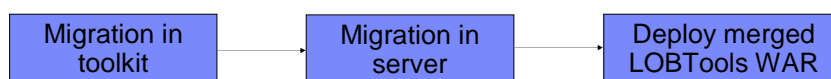
1. Compare feature pack 3.0.1 base and feature pack 3.0.1 customized code using the **comparison utility** to identify the customized OpenLaszlo files
2. In the **OpenLaszlo migration results** view, expand file names to view the customized entries. View the delta details for **un-migrated** entries
3. Invoke the **compare editor**
4. In the **compare editor**, locate an un-migrated entry in a feature pack 3.0.1 customized file. Use the line number and change type from the **OpenLaszlo migration results** view to find the customized code.
5. In the **OpenLaszlo migration results** view use the file's pop-up menu option **edit current edition** to open the feature pack 4 code in an OpenLaszlo editor
6. Apply the custom code located in step 4 to the feature pack 4 file opened in step 5
7. Click the refresh button in the **OpenLaszlo migration results** view to update your migration results. The status for the updated entry should be changed from **not migrated** to **migrated**
8. Repeats steps 4-7 for each un-migrated line number for the file, until all the customizations in the file are migrated



The first step to migrate your OpenLaszlo custom code files is to run the comparison utility, which shows you a migration results list of files. Expand the files in this list to see your customized entries. Open the compare editor to find the customized lines of code. Use the **Edit current edition** option to open the corresponding feature pack 4 file and then merge your customized code. Refresh the migration results view repeatedly to view your progress. Repeat the edit and merge operations on all your custom code.

Deploying migrated code to the server

- Install feature pack 4 on top of feature pack 3.0.1
- Run enableFeature script
 - ▶ Backup feature pack 3.0.1 LOBTools WAR to
`WC_installdir/components/management-center/backup`
 - ▶ Enable management center in FEP4, replace LOBTools WAR with the new one in feature pack 4 EAR
- Deploy the merged LOBTools WAR from WebSphere commerce developer into EAR



After you finish your migration, you are ready to deploy your migrated Management Center Web module to your staging or production server.

Before deploying your Management Center Web module to your server environment, you need to install feature pack 4 on the server. You also need to run the enableFeature script to enable the Management Center. This script backs up the feature pack 3.0.1 LOBTools Web module to a backup directory and replaces the old LOBTools Web module with the one in the feature pack 4 installation package.

Finally, you export your migrated LOBTools Web module from the WebSphere Commerce Developer and deploy it on your server.

Summary

- Migration script
- Comparison utility
- Overall process of migration from feature pack 3.0.1 to feature pack 4



This presentation discussed the Management Center overall migration process from feature pack 3.0.1 to feature pack 4. It also covered detailed steps on how to use the utilities provided in feature pack 4 to do the migration.

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