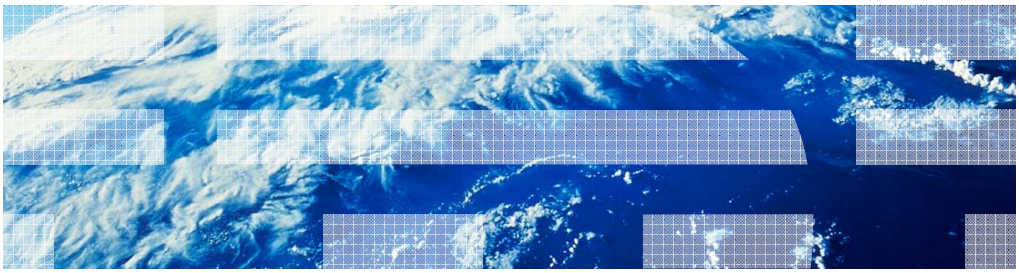
WebSphere Commerce V7 Feature Pack 2

Store management



WebSphere software

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This presentation provides an overview of the new store management tool in WebSphere Commerce Version 7 feature pack 2.

Table of contents

- Store management
- Styles and store function selection
- Migration
- Problem determination

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The presentation begins with an overview of the store management capabilities in Management Center. Next, the implementation changes for styles and store function selection options are discussed. This is followed by the migration steps for stores published before feature pack 2. The presentation concludes with some problem determination tips.

Section

Store management

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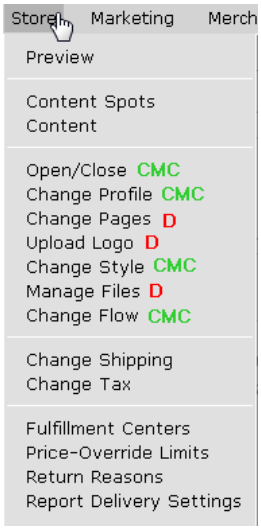
This section covers the store management features.

Store administration

- New Management Center tool for store management
  - Open and close stores
  - Launch stores
  - Modify store profile
  - Change style
  - Change flow
- Deprecation of unused WebSphere Commerce Accelerator features
  - Manage files [1]
  - Change pages [2]
  - Upload logo [2]
  - Banner tool [2]

1 – replaced by Assets tool

2 – replaced by e-Marketing Spots



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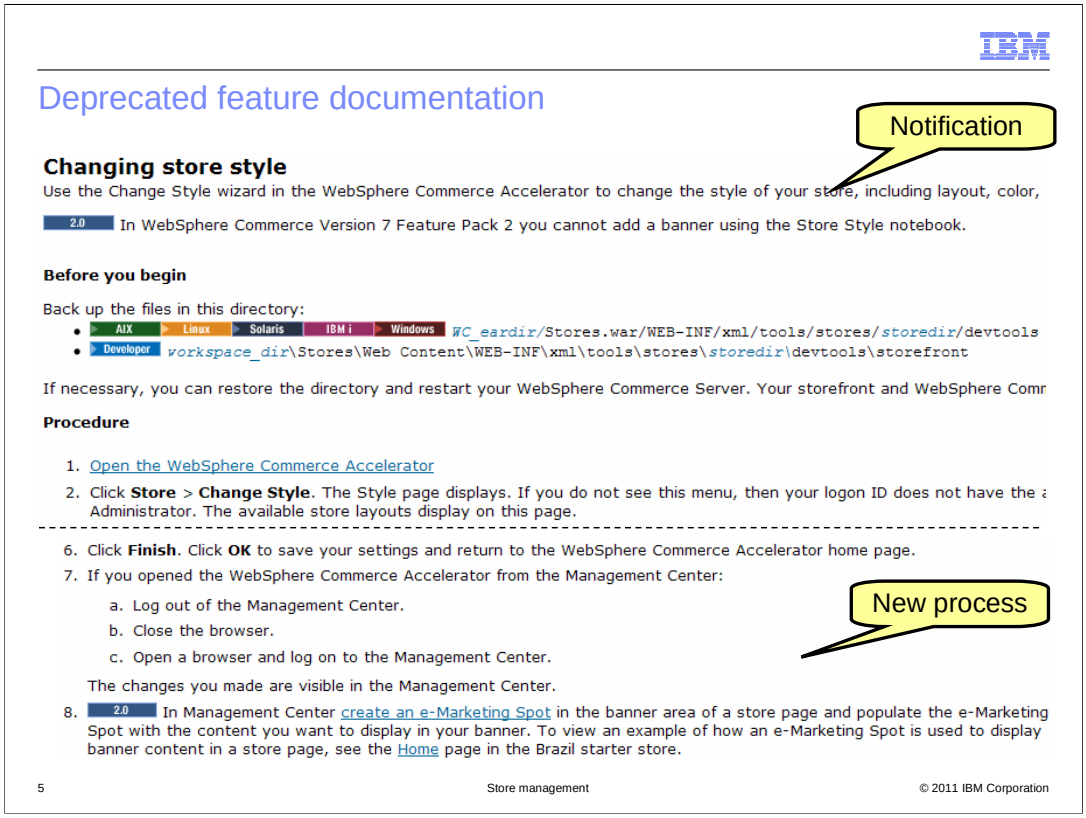
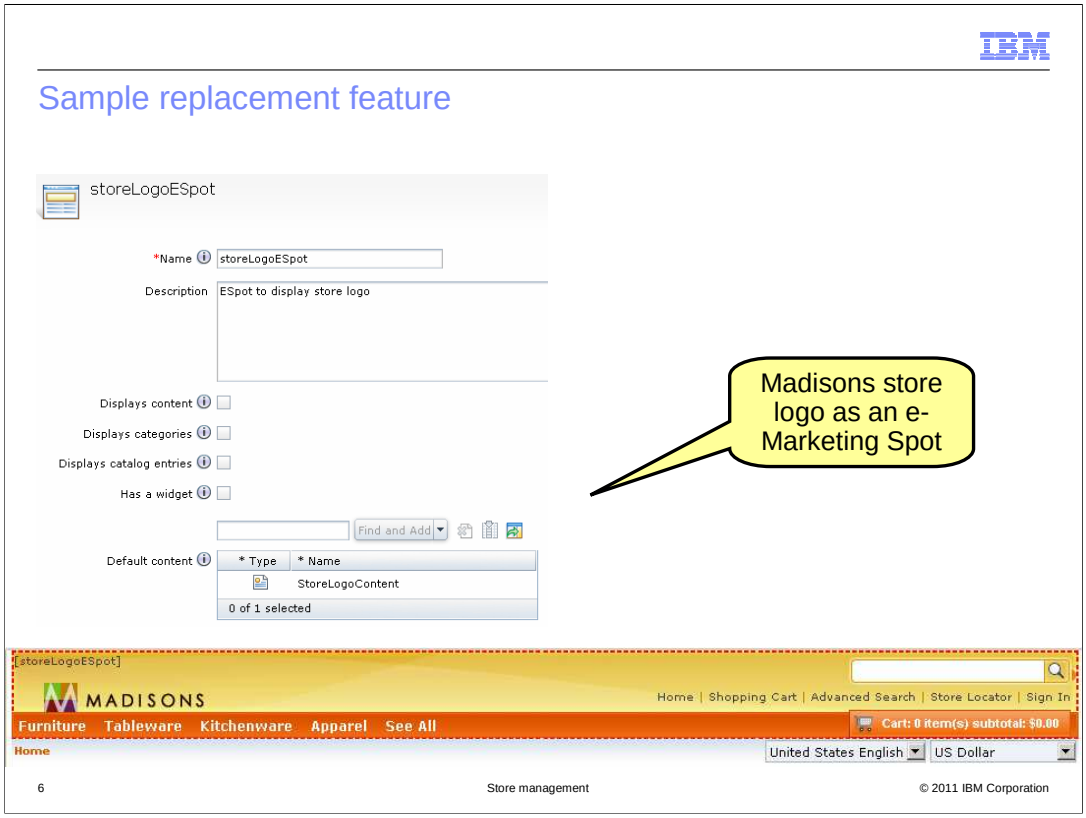
Many store management capabilities have been moved to the Management Center Store Management tool however a few have been deprecated and replaced with other WebSphere Commerce features. The screen capture of the WebSphere Commerce Accelerator menu on the right shows the status of each Accelerator feature. The green CMC means the feature is available in Management Center and the red D means the feature has been deprecated.

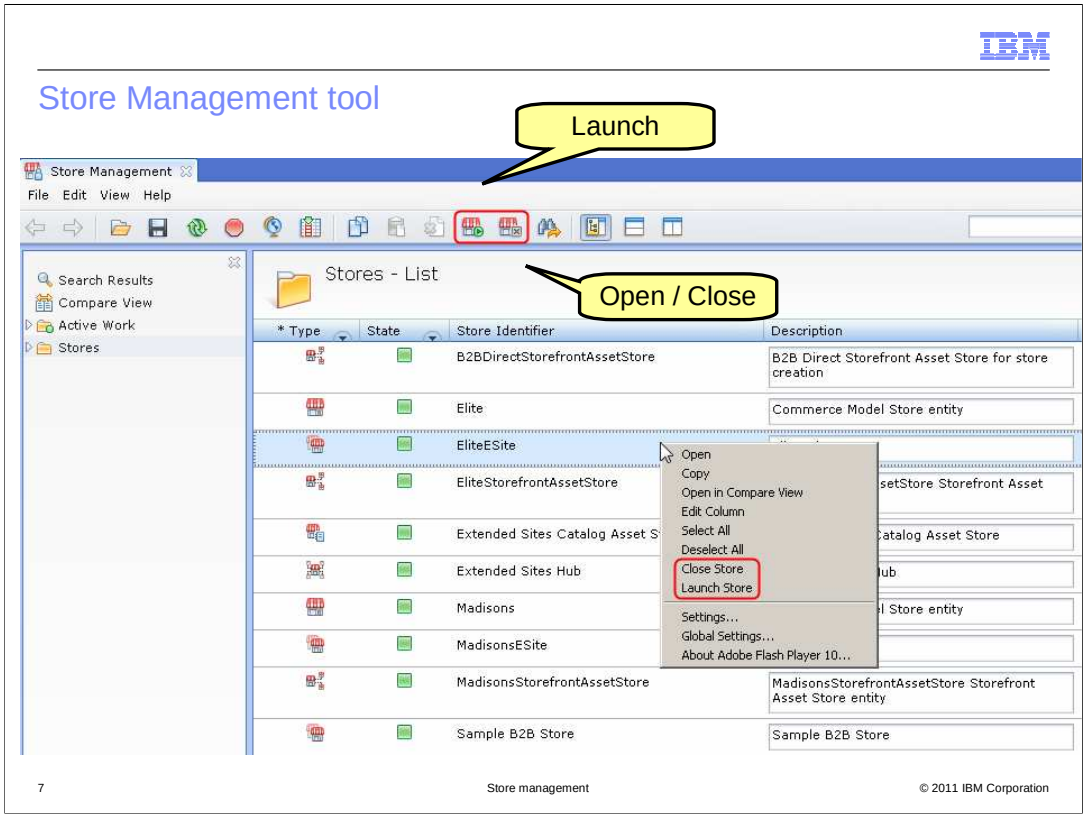
Features in the Store Management tool include opening and closing stores, launching stores, modifying the store profile, changing store style and changing store flow. The manage files feature in Accelerator is replaced by the Management Center Assets tool. The change pages, upload logo and banner tool features have been replaced by e-Marketing Spots. Examples of how to reproduce these options using e-Marketing Spots are provided in the WebSphere Commerce Information Center.



This slide shows an example of the updates to the WebSphere Commerce Information Center for deprecated store management features in feature pack 2. Information Center articles include both notification that a feature is no longer available and the new process for achieving similar capability.

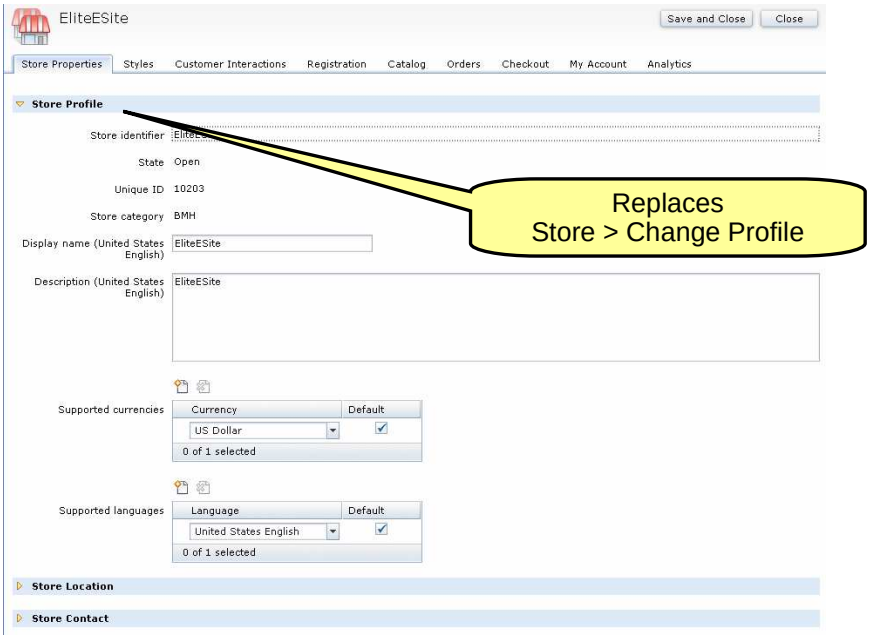


The starter stores also provide examples of how the deprecated tasks are replaced in feature pack 2. For example, in the Madisons starter store, the store logo is defined as an e-Marketing Spot.



This slide shows a screen capture of the stores list in the Store Management tool. Each store that you have access to manage is displayed in this list. New toolbar buttons have been added to support opening, closing and launching stores. These options are also available in the pop-up menu.

Store properties page



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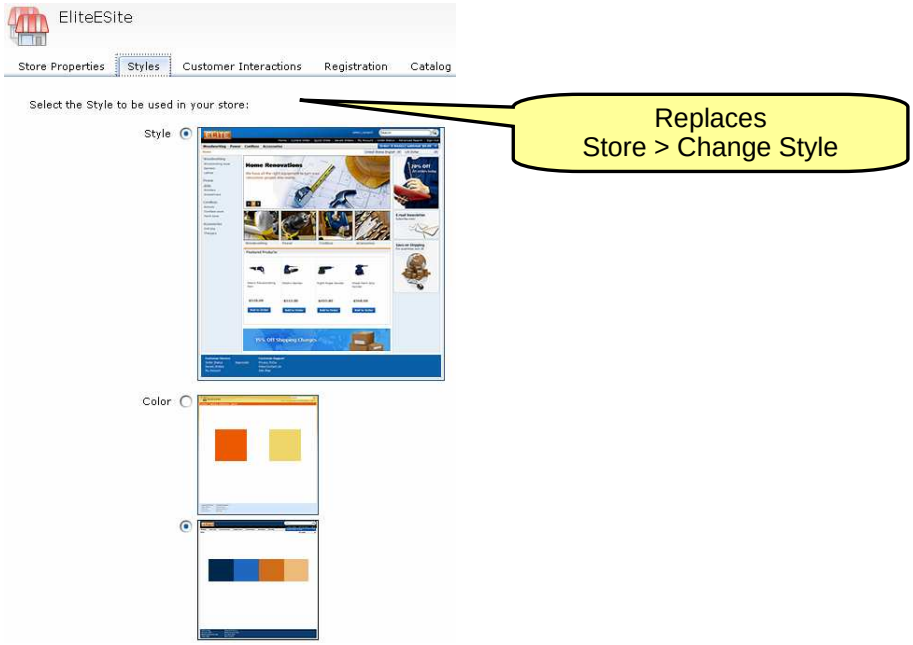
This screen capture shows the store properties page. This page replaces the Change Profile menu option in WebSphere Commerce Accelerator.

Store styles



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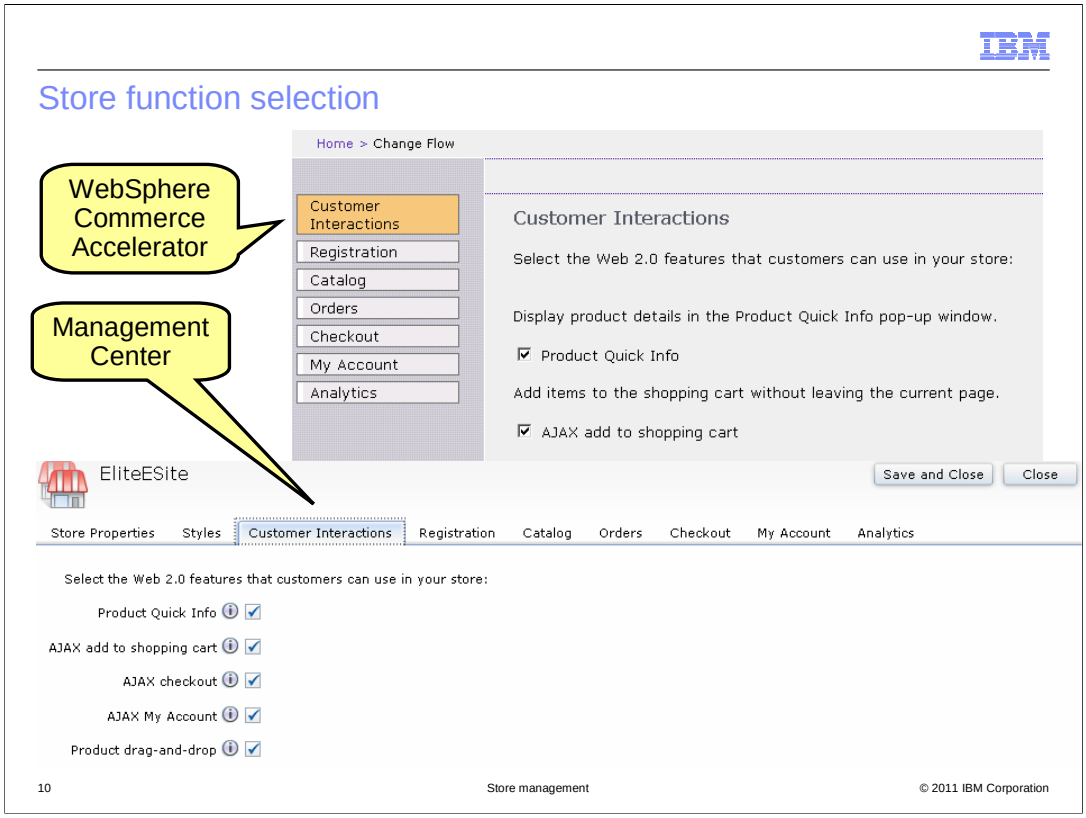
The next tab in the properties view is Styles. This page replaces the Change Style menu option in WebSphere Commerce Accelerator.



On this slide you see a comparison of the WebSphere Commerce Accelerator and Management Center interfaces for managing store function selection options. Each page in the Accelerator notebook is converted into a tab in the store properties view. This allows you to easily view and edit all information about the store within the properties editor.

Differences from other Management Center tools

- No store selection after launching tool
- No utility pane
- Stores are not content-managed
  - Store Management tool not available when working on a workspace task

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The Store Management tool does differ in a few ways from other Management Center tools. Since you use the tool to manage multiple stores, there is no store selection step when you launch the tool. There is also no utility panel in this tool since it is not needed to complete any of the store management tasks. In a workspace enabled environment, you can only access the Store Management tool when working on the base schema. Stores are not content-managed so the tool is not available when you are working on a task within a workspace.

Implementation changes

- OnlineStore SOA service replaces the OnlineStore SOI service
  - Get services
  - Change service
  - Process services
    - Open store
    - Close store
- Trace component: com.ibm.commerce.infrastructure.*

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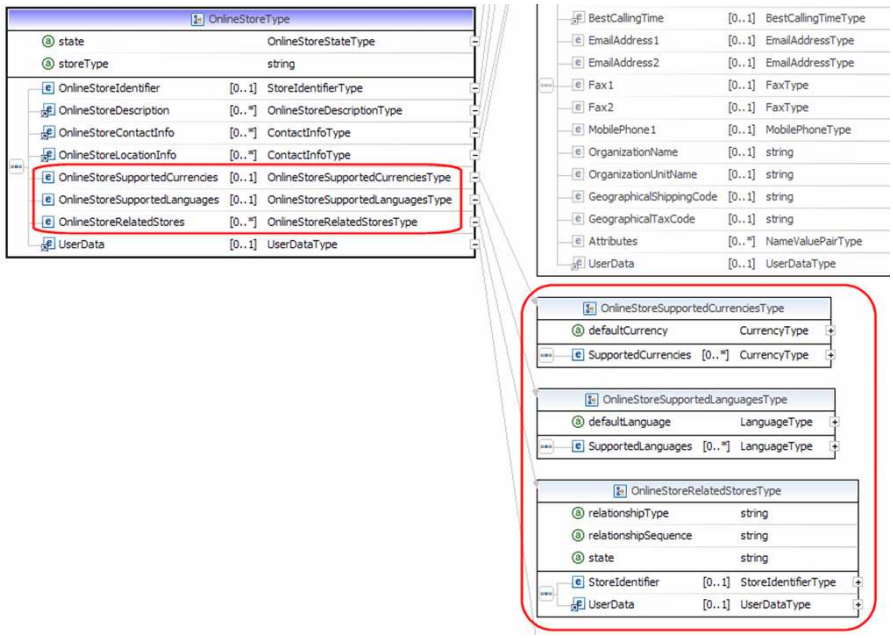
The Store Management tool uses the OnlineStore SOA service. This service replaces the previous SOI version. You can enable tracing for the OnlineStore service using the com.ibm.commerce.infrastructure component.

OnlineStore noun changes



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This slide highlights changes to the OnlineStore noun. It has been extended to contain supported currencies and languages for the store. It also contains information about related stores.

Section

Styles and store function selection

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This section covers the new implementation for styles and store function selection.

Highlights

- Select and apply style and store function options in Management Center
- WebSphere Commerce Accelerator menus are disabled
  - Change Style
  - Change Flow
- New implementation uses marketing engine
- Easier maintenance, changes can be propagated from staging to production
  - No EAR updates

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The Store Management tool includes support for managing styles and store function selection options. When you adopt the Store Management tool, the equivalent WebSphere Commerce Accelerator menu options are disabled. Switching to Management Center is not required in feature pack 2, you can continue to use Accelerator to manage this data for existing stores. The Store Management tool introduces a new implementation for managing both styles and store function options. By using the marketing engine to store and evaluate the selected options, the need to manually update EAR files is removed. All selections can be directly propagated from staging to production using the existing propagation tools.

Implementation changes

- Enablement status stored in EMSPOT and DMEMSPOTDEF
- Tag library updates
- Enablement status cache
- Trace components
  - com.ibm.commerce.marketing.*
  - com.ibm.commerce.tools.devtools.flexflow.*

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The new implementation for styles and store function options uses special types of e-Marketing Spots to store the available and selected options. The new evaluation logic is contained in the existing tag library so no changes are needed in the storefront to use the new implementation. The enablement status of each option is evaluated once and cached. To examine the evaluation of a style or store function, you can enable the trace components shown on the slide. The marketing component provides information about the evaluation of the e-Marketing Spot. For store function options, the flexflow trace component provides information from the tag library processing.

Use of marketing engine

- EMSPOT and DMEMSPOTDEF represent feature status
- Tag library uses Marketing service to determine feature status

```
<flow:ifEnabled feature="SearchBasedNavigation">
  <c:set var="SearchBasedNavigation" value="true"/>
</flow:ifEnabled>
```

EMSPOT_ID	<next ID from keys table>
STOREENT_ID	<store id of the store that contains this feature>
NAME	**SearchBasedNavigation**
DESCRIPTION	
USAGETYPE	**STOREFEATURE**

Store function name

DMEMSPOTDEF_ID	<next ID from keys table>
EMSPOT_ID	<same as EMSPOT_ID above>
STOREENT_ID	<store id of the store that contains this feature>
CONTENTTYPE	**FeatureEnabled**
CONTENT	**True**

New e-Marketing Spot type

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Here you see how the tag library and marketing engine are used together to support store functions. The name of the store function option evaluated by the tag library matches the name of the e-Marketing Spot. A new usage type, store feature, identifies the e-Marketing Spot as being a store function option. The e-Marketing Spot default content table contains a corresponding row that represents the status of the option. The new content type is called FeatureEnabled and the content is true if the store function is enabled and false otherwise.

E-Marketing Spot style definitions

EMSPOT_ID	<next ID from keys table>
STOREENT_ID	<store id of the store this style is applied to>
NAME	**vfile.color**
DESCRIPTION	**vfile.color**
USAGETYPE	**STOREFILEREF**

DMEMSPOTDEF_ID	<next ID from keys table>
EMSPOT_ID	<same as EMSPOT_ID above>
STOREENT_ID	<store id of the store this style is applied to>
CONTENTTYPE	**URL**
CONTENT	**images/colors/color1**

EMSPOT_ID	<next ID from keys table>
STOREENT_ID	<store id of the store this style is applied to>
NAME	**vfile.stylesheet**
DESCRIPTION	**vfile.stylesheet**
USAGETYPE	**STOREFILEREF**

DMEMSPOTDEF_ID	<next ID from keys table>
EMSPOT_ID	<same as EMSPOT_ID above>
STOREENT_ID	<store id of the store this style is applied to>
CONTENTTYPE	**URL**
CONTENT	**css/common1_1$locale$.css**

DMEMSPOTDEF_ID	<next ID from keys table>
EMSPOT_ID	<same as EMSPOT_ID above>
STOREENT_ID	<store id of the store this style is applied to>
CONTENTTYPE	**Locales**
CONTENT	**ar_EG,iw_IL,ja_JP,zh_CN,ko_KR,zh_TW**

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Store styles are represented by e-Marketing Spots in a similar way. Here, the piece of style information is the name of the e-Marketing Spot and the usage type is store file reference. In the default content table, the content type field identifies the information and the content field contains the value. The example on the top half of the slide shows the selected color palette. On the bottom half of the slide is an example of a stylesheet. In this case there are two default content rows. The first is the location of the stylesheet and the second is the locales the stylesheet applies to.

Tag library updates

- No API changes
  - Storefront pages do not change
- Tag implementation supports both configurations
- With feature pack 2 enabled
  - Find the e-Marketing Spot that represents the feature and determine its status
  - If e-Marketing Spot is not found, switch to the old logic

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Updates to the tag library mean that your store pages do not need to change when moving from the previous implementation of styles and store functions to the new one. The existing tags support both implementations. Once you enable the Management Center in feature pack 2, the tag will look for an e-Marketing Spot corresponding to the feature name. If that is not found, it will check the XML file used by WebSphere Commerce Accelerator.

Caching store function status

- WebSphere Application Server Data cache
  - WCFlexFlowDistributedMapCache
- Called by tag library
- Default configuration supports 1000 entries (store functions)
- Cache key combines store ID and store function name
- Cache created during fix pack installation
  - Removing fix pack deletes the cache

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To avoid the overhead of a database query each time the status of a store function option is required the current status can be cached. The tag library then checks for a cached value before querying the database for the store function status. This cache is preconfigured for up to 1000 different store function options. The new cache is created during fix pack installation and is removed if the fix pack is deleted.

Cache invalidation

- Invalidation supported for
  - Whole cache
  - Based on store ID
  - Based on store function name
  - Based on store ID and store function name
- Change to EMSPOT or DMEMSPOTDEF triggers row created in temporary table
- Scheduled job checks temporary table and performs cache invalidation
  - Delay between update and invalidation depends on job frequency
- Triggers are not enabled by default

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Once you have the store function cache enabled, you need to enable cache invalidation. Details on creating cache invalidation triggers are provided in the WebSphere Commerce Information Center. Once these triggers are enabled, changes to a store function row in the e-Marketing Spot table or e-Marketing Spot default content table will cause a row to be created in a temporary table. A scheduled job checks this temporary table and performs the cache invalidation when needed. Depending how often this scheduled job runs, there can be some delay between the store function option being updated and the changes being reflected in the storefront.

Section

Migration

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This section covers the steps for migrating styles and store function selection options for an existing store.

Migration scenarios

- Enabling the management-center feature in feature pack 2 enables store function selection
- Manual migration step required for
  - Existing published stores
  - New stores published from an existing SAR file
  - Starter stores not based on Madisons or Elite
- Migration process
  - Run the migration script
  - Create new tabs in Management Center
- Note: migration of existing stores is optional

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When you enable the management-center feature for feature pack 2, the new store function selection implementation becomes available. The Madisons and Elite starter stores in feature pack 2 contain e-Marketing Spot definitions for all their store function options. For other stores, migration is needed to make use of the new implementation. This includes existing stores that you are upgrading to feature pack 2, stores published from a custom or pre-feature pack 2 SAR file and starter stores not based on Madisons or Elite.

A migration script is provided to assist in the upgrade process. This script creates the e-Marketing Spot data for the store function options and styles available in WebSphere Commerce Accelerator for the store. Creating the definition file to display the corresponding tabs in Management Center is a manual migration step. You can use the file created for the Madisons or Elite store as an example.

Migrating your existing stores is not a required step. You can choose to continue managing style and store function options through Accelerator.

Migration script

- Converts WebSphere Commerce Accelerator change flow data to e-Marketing Spot data
- Converts WebSphere Commerce Accelerator style data to e-Marketing Spot data
- Updates STORE.STORELEVEL flag to indicate store has been migrated
  - Prevents flex flow and style settings from being changed in Accelerator
- The following files are not used after migration but are kept for reference
  - scf.xml
  - fsf.xml
  - features.xml

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The migration script is responsible for converting the change flow and style data stored by WebSphere Commerce Accelerator into store feature and store file reference e-Marketing Spots. The script also updates the store level column in the store table to signal that the migration has been completed. Once migrated, you cannot use Accelerator to manage store styles and change flow options. The XML files used by Accelerator are no longer needed after migrating but they are kept for reference and backup purposes.

Migration script syntax

- Toolkit version

```
<Toolkit install dir>\components\management-
  center\bin\migrateStoreFunctions.bat –Dstore=”<storeId1>,<storeId2>”
  -verbose
```

- Logfile: <Toolkit install dir>\logs\migrateStoreFunctions.log

- Runtime version

```
<WC_install_dir>\bin\config_ant.bat -buildfile
  <WC_install_dir>\migration\optional\components\management-
  center\subcomponents\store\config\StoreFunctionsMigration.xml -
  DisServerOrToolkit=server -DinstanceName=<instance name> -
  DdbUserName=<DB user> -DdbUserPassword=<DB password> -
  Dstore=”<storeId1>,<storeId2>” -logfile
  <WC_install_dir>\logs\migrateStoreFunctionsLog.txt -verbose
```


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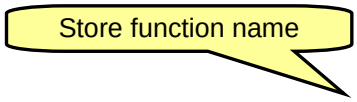
This slide shows the syntax for invoking the migration script.

Manual UI migration

- Customize Management Center after completing migration
- Create a version of StoreFlexFlowPropertiesView.def
  - LOBTools/WebContent/config/commerce/store/propertiesViews/<StoreName>




```
<PropertyCheckbox name="StoreLocator.checkbox" objectPath="StoreFlow[name=StoreLocator]"
promptText="${stoFlexFlow_10001.StoreLocator.checkbox.label}" propertyName="enabled"/>
```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Once the migration script has run, you complete the migration process by creating a definition file for the store style and store function selection properties. Each store has it's own definition file. To simplify the process, you can copy the definition file from one of the starter stores and use it as a starting point.

The code sample on this slide shows how to add a store function selection option to the definition file. The name specified in the objectPath attribute should match the name of the e-Marketing Spot for the store function.

Problem determination

- Property tabs are missing in Management Center
  - StoreFlexFlowPropertiesView.def
  - New tabs added during SAR publish
  - Migrated and custom tabs must be added manually
- Store function check boxes missing
  - Same causes as above
- Check boxes not active (can't be checked)
  - E-Marketing Spot not defined

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If property tabs are missing when viewing the store in Management Center you can check the properties view definition file for the store to make sure they have been added correctly. Publishing an enhancements sar adds tabs for the features contained in the sar. For existing stores being migrated or custom store function options being added, the definition file must be updated manually.

If a store function check box is visible in Management Center but cannot be selected, the underlying e-Marketing Spot might be missing. For existing stores this can mean the migration script did not complete successfully. Check for errors in the migration log file.

Trace components

- Related trace components
  - com.ibm.commerce.infrastructure.*
  - com.ibm.commerce.marketing.*
  - com.ibm.commerce.tools.devtools.flexflow.*

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The useful traces for debugging problems with the store management tool are infrastructure, marketing and flexflow. The infrastructure trace covers the OnlineStore services for managing store properties. The marketing trace covers the evaluation of the store function and style e-Marketing spots. The flexflow trace provides information from the tag library processing.

References

- Store Management tool
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.management-center.doc/concepts/cststoremanagementtool.htm
- Improving store function performance using caching
  - http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.admin.doc/tasks/tdcstorefunctions.htm

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This slide contains some useful references.

Summary

- Store management
- Styles and store function selection
- Migration
- Problem determination

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The presentation began with an overview of the store management capabilities in Management Center. Next, the implementation changes for styles and store function selection options were discussed. This was followed by the migration steps for stores published before feature pack 2. The presentation concluded with some problem determination tips.

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