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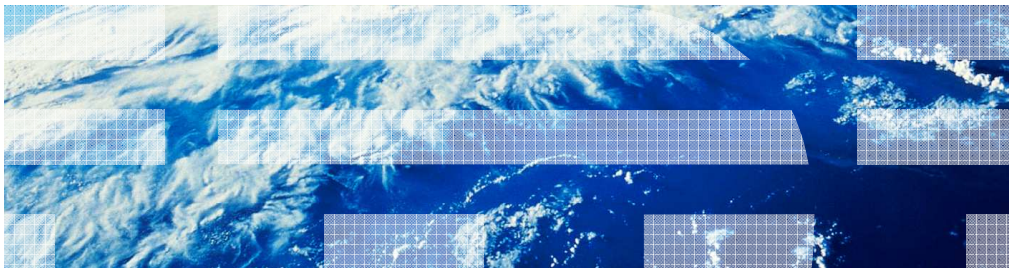
WebSphere Commerce V7 Feature Pack 5

Workspaces enhancements

Feature Pack 5 includes updates to the Workspace Management tool in the Management Center improving the approver process with the history of management center objects that have been updated in the workspace environment.

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- Workspace Management Tool in Management Center review
- Workspaces enhancements

Workspaces enhancements

This presentation will begin by reviewing workspace concepts and then go over the changes made to the Management Center Workspace tool.

Section

Workspaces review

This section reviews Workspaces.

What are workspaces?

- A workspace lets you prepare store content for review
- Approved content is pushed to a production-ready environment where it can be published

Workspaces enhancements
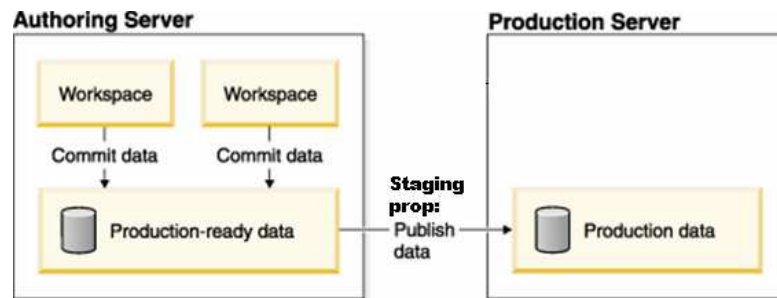
Introduced in WebSphere® Commerce version 6, workspaces provide the ability for business users to contribute content associated with a business process that is isolated from the production-ready data on an authoring server. A workspace is created and managed by an administrative business user designated as the workspace manager.

A workspace is an access-controlled work area where you can make and preview changes to managed assets, without affecting what is currently running on your site. Working in the context of a workspace is similar to having your own private copy of the managed assets. You can make changes and preview changes without affecting managed assets outside the workspace. Once you are happy with the changes you have made in a workspace, an approver can commit the changes to the production database, and begin to see the effects on your site.

Changes in workspaces are made to the production-ready data on an authoring server. Production-ready data is data that is ready to be published to the production server. Once changes made in a workspace are complete and approved they become part of the production-ready data. Only production-ready data on the authoring server is published to the production server from the authoring server. Data in workspaces is never published directly to the production server.

In an event of urgent fixes, changes need to be committed to the production-ready data and published to the production server as soon as possible. The task groups with quick publish option enabled should be used. When all tasks in a task group marked as quick publish are completed and approved, the task group files and data are committed to the production-ready data. When the task group commit completes successfully, the task group files and data are published to the production server.

Workspaces.ppt

Workspaces data model

- Each workspace consists of three database schemas
  - Base schema
    - Contains the current content
  - Write schema
    - Stores the content changes
  - Read schema
    - Presents how the current and changed content looks

Workspaces enhancements

Workspaces provide data isolation. Each workspace has its own database schema to keep data separate from other workspaces and the production-ready data. Each workspace consists of three database schemas. The base schema contains the current content, write schema stores the content changes, and read schema presents how the current and changed content looks like.

Base schema contains all the committed changes. Data in base schema is the production ready data. All workspaces draw from this common repository of data but none of their working changes are reflected here. It is in the individual write schemas that any uncommitted changes are stored, thereby if there are two workspaces, workspace one changes are isolated from changes in workspace two. However, when users preview their changes, the write and base schemas are hidden behind the read schema. The read schema first checks the write schema for the requested data and, if it is not found there, then goes to the base schema. Essentially, the read schema consolidates all the altered and unaltered data from the write and base schemas and packages it as a single entity. Within a workspace context, updates to a resource are directed to the write schema, whereas retrieving data for a resource is directed to the read schema.

This section describes 'Managed Resources'. So any data that is enabled for workspace approvals will have the model described here with base, read and write Schemas. Unmanaged resources have only one table that are the same for base, read, and write schemas.

Flow: publishing workspace data

- Create a workspace
- Create a task group
  - Optional: Enable quick publish
  - Optional: Enable retry for quick publish
- Create tasks
- Activate your task group
  - Optional: Schedule the commit of your task group
- Work on tasks and modify content
- Mark all of the tasks in the task group complete
- Approve your task group
- Publish production-ready data (if not quick publish)
- Data published to production server

Workspaces enhancements

A workspace is divided into task groups and tasks. Task groups serve as containers for tasks, where each task group can be committed independently of the other task groups. Tasks provide a separation of responsibility, where each task is an individual unit of work that contributes to the completion of an activity. A Workspace Content Contributor chooses from a list of assigned tasks to work on. A workspace contains one or more task groups. The Workspace Manager is responsible for creating and managing a workspace, and its properties, and the task groups and tasks within the workspace.

You can publish changes made to files and data within a workspace to the production server. Here is a list of a flow for publishing workspace data. First create a workspace, then create a task group in your workspace. Assign a workspace approver to the task group. When creating your task group you can optionally set the quick publish option. This option will publish file and data changes to the production server as soon as all tasks in the task group are marked complete and all approvals are satisfied. You can also, optionally enable quick publish retry so that if quick publish fails on the first attempt, it keeps trying for a specified number of times to ensure that the files and data are published. Next, create all of the tasks for your task group and assign contributors to each task. Activate your task group, and optionally set a specific date and time to commit your changes to production-ready data on the authoring server.

The next step is for the Content Contributors to work on their tasks and when done mark the task complete. A task group cannot be approved or committed until all tasks in the task group are complete. After the tasks are marked complete, have the approver approve your task group to commit the files and data in the task group to the production-ready data, either immediately or at a scheduled time set earlier. If the task group is marked as quick publish, changes are also published to the production server. If not, publish the production-ready data from the authoring server to the production server to view changes on your site.

Workspaces.ppt

Roles

- Workspace Manager
  - Responsible for managing workspace, task groups and tasks
    - Main roles: Create Workspaces, task groups, and tasks; assign Workspace Content Contributors, assign Workspace Task Group Approvers
- Workspace Task Group Approver
  - Responsible for approving the task group
    - Main roles: Approve and reject the task group
- Workspace Content Contributor
  - Responsible for creating, deleting and editing store content
    - Main roles: Work on and completing tasks
    - Must be assigned Category Manager or Marketing Manager role

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There are three roles for workspaces: the Workspace Manager, task group approver, and content contributor. These users and the site administrator are the only users that can access the Workspace Management tool. If workspaces are enabled, and a user without an allowed role logs into the Management Center, the tool is not visible to them, and automatically works on base content.
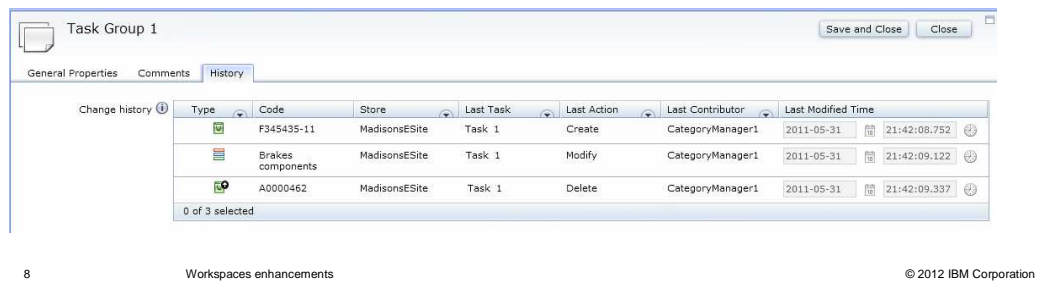
A Workspace Manager has the ability to create and manage a workspace and its tasks and task groups. The Workspace Manager can assign individuals or roles to perform the Content Approval task of the workspace. The Workspace Manager can assign individuals or roles to be Workspace Content Contributors to tasks for this workspace. The Workspace Manager is a concrete role in WebSphere Commerce that is given access to the Workspace tools for creating workspaces.

A Workspace Task Group Approver has the ability to determine when content that has been modified or created is ready to be incorporated into production. Task Group Approvers are assigned explicitly to approve content belonging to a particular task group by the Workspace Manager.

A Workspace Content Contributor has the ability to create and update commerce content. Content Contributors can be assigned explicitly to work on tasks in a particular workspace by the Workspace Manager. Content Contributor is not a physical role, but refers generically to all those users and roles with the ability to create content (for example Product Manager, Marketing Manager) whether within a workspace or not.

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Updates in feature pack 3

- Port existing capabilities from the Workspace Administration Tool into the new Management Center Workspace tool

- Enhance Approver process capabilities in the Management Center Tasks Tool
  – Show change history for updates

- Fine grained access control

- Single view across all workspaces and all tasks in the workspaces where you can see how work is progressing

Task Group 1						Save and Close	Close

General Properties   Comments   History

Change history ⓘ

Type	Code	Store	Last Task	Last Action	Last Contributor	Last Modified Time	
	F345435-11	MadisonsESite	Task 1	Create	CategoryManager1	2011-05-31	21:42:08.752
	Brakes components	MadisonsESite	Task 1	Modify	CategoryManager1	2011-05-31	21:42:09.122
	A0000462	MadisonsESite	Task 1	Delete	CategoryManager1	2011-05-31	21:42:09.337

0 of 3 selected

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In WebSphere Commerce V7 Feature Pack 3 the Management Center task tool was renamed to the Workspace Management Tool. All the capabilities from the WebSphere Commerce Workspace Administration Tool were made available in the Management Center business user tools. This feature also delivered enhanced functionality and usability by improving upon the Task Group approval process.

Feature Pack 3 included a history view. This view is created for a task group and all Management Center object updates performed in the workspace environment for this task group. This allows approvers to quickly verify that the required changes were made and to confirm that no unexpected changes are included.

The new History feature tab is shown here. This feature allows an approver to see what actions were taken on what objects in what stores so that they do not have to rely solely on the comments the contributors made. Any business object that has been modified, updated and created by the contributor is recorded in the new history tab. Information such as what object type, code, store, task, action taken, contributor and modification dates are included in the table. The History tab is available for both tasks and task groups. The history will contain the history for all the tasks associated with the task group.

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Workspace enhancements

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Feature Pack 5 continues to improve the Task Group approval process by enhancing the history feature tab with new tasks open, compare with approved content, and undo. This section will cover those new features.

Overview of enhancements

- Improvements to the approver user experience:
  - Open the business object in read only mode directly from the change history and see the modified object
  - Compare the modified object to the original to see the differences from one workspace to another
  - Undo the changes to an object within a task group history record

Currently customers have issues with the approval process with WebSphere Commerce in that the approver has limited ability to view and correct the task group he or she is assigned to approve. In Feature Pack 3, the approver is allowed to see the history of changes that need to be approved, but cannot perform corrective actions for certain common scenarios. Scenarios such as the approver is not able to easily see what specifically has changed, and the approver can open the modified object, but does not know what fields were modified.

In order to improve the approver user experience new tasks are included in Feature Pack 5. Open the business object properties page in read only mode directly from the change history and see the modified object. Compare the modified object to the original to see the differences from one workspace to another. Undo one or more create, update or delete history records for the business object.

The history records show in the history tab for both Task Groups and Tasks. Only a Workspace Approver can do the Undo feature.

Enhancements to Workspace History

- Deleting a product will now also record the delete history for all of it's SKUs

Extended Site support for Workspace History:

Change made	Logical Object Type	History record store
Create an object in Asset Store	Local	Asset Store
Create an object in Extended Store	Local	Extended Store
Delete an object in Asset Store	Local	Asset Store
Delete an Asset Store object in Extended Store	Local	Asset Store
Delete an Extended Store object in Extended Store	Local	Extended Store
Modify a property of an object in Asset Store	Local	Asset Store
Modify an Asset Store property of an Asset Store object in Extended Store	Local	Asset Store
Modify an Extended Store property of Asset Store object in Extended Store	Inherited	Extended Store

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This slide covers the enhancements to the Workspace history. Now when a user deletes a product all the SKUs under that product that are deleted will have their own record. The table here shows the extended site support for Workspace history.

Open

- You can open history records from the Task Group and Task History panel
  - Cannot open 'delete' records
- The business object properties page will open in read only mode
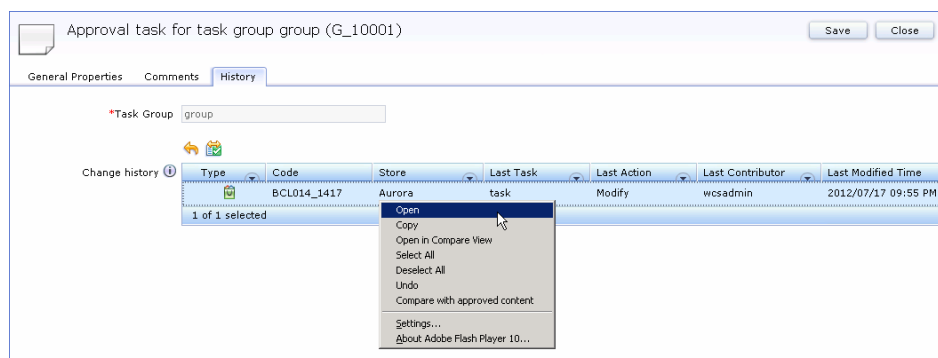
The history records in the history tab for both Task Groups and Tasks now have the Open action. This will open the business object properties page in read only mode showing the changes made to this object under this task group. You can choose the open option from the drown down menu as shown here, select open in the main toolbar under File, and you can double click the record to open it too. You cannot open a delete record.

Compare with approved content
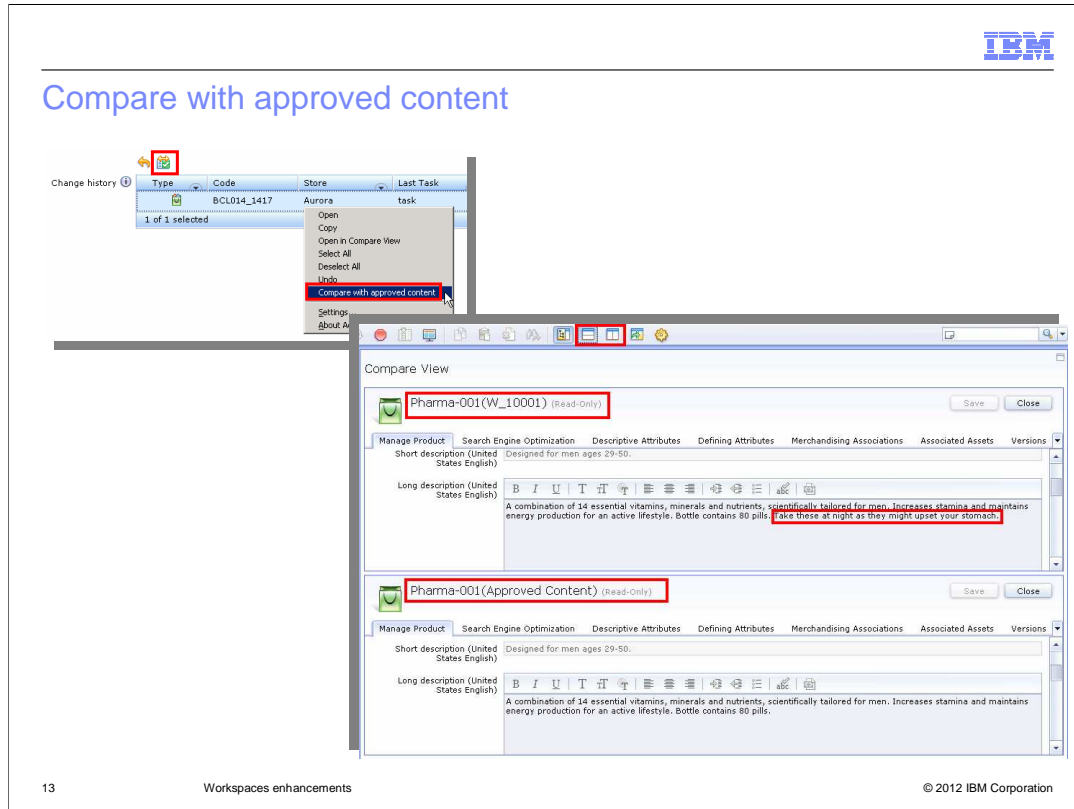
The history records in the history tab for both Task Groups and Tasks now have the 'Compare with approved content' option. This option is available in the change History list toolbar and pop-up menu. This will display in read-only mode the modified object and the approved content object. The view can be horizontally or vertically. The 'Compare with approved content' is only available for modified objects and there are cases where you might not see an approved content object. For example, creating a new product in the asset store and then modifying an extended site property creates a new modify record in the history. The modify record compare with approve content option will have an empty pane for the approved object since it does not exist. This compare with approved content should not be confused with the regular Management Center compare that can be used to compare any two open objects, such as the object changes in two different task groups.

Undo

- This action will undo one or more create, update, or delete history records for the business object
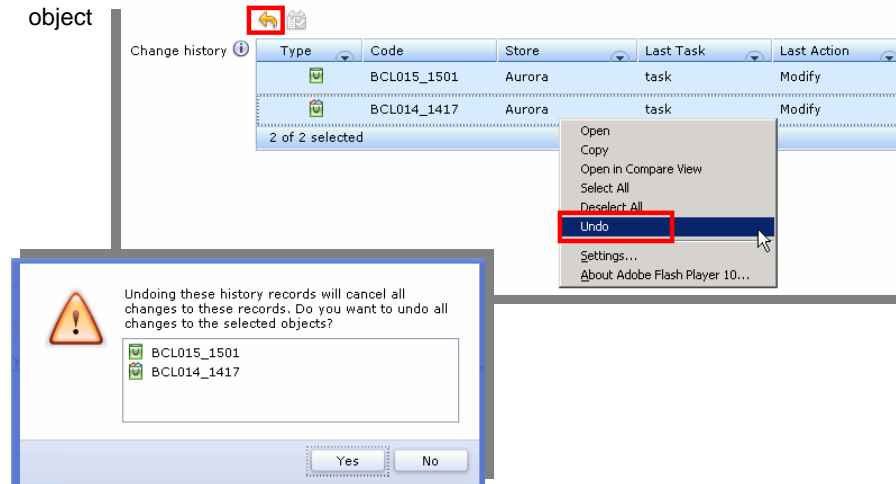
An Approver will see the undo feature. If any change is incorrect or no longer needed, the approver can immediately undo the change and approve the rest of the task group instead of sending the task back for further work. When a history record is selected, the undo action is accessible from the Change History list toolbar, pop-up menu, and main toolbar under the Edit menu. The history will record the store that owns the object/relationship, and it is not necessarily the store in which the change was made. In the special case where the business user is in the Extended store and makes changes to an object for both Extended and Asset store (for example, catalog entry, Merchandising Association, or offer price) you will get two history records. One for the change that belongs to the Extended store and one for the change that belongs to the Asset store. Undo on a history record will only undo the changes associated with that record and are scoped to the store in the history record. After clicking undo, the changes to the objects are undone, and the associated history record is removed. When you click undo, a dialog will pop up to confirm the undo action. It can be a single undo to one object or multiple undo to multiple objects.

Undo action

- Undo a create
  - Deletes the object and any changes associated with it
  - The object and any subsequent changes related to the object are removed
  - Other task groups that referenced this object are affected

- Undo a modification
  - Deletes the changes made to the object
  - Changes made under other task groups are not affected

- Undo a delete
  - Restores the deleted object
  - The object is restored back to the base schema
  - Changes made under other task groups are not affected

- Any logged references to the original action are also removed including:
  - metadata, change history and references in other tables that have a foreign key pointing to the object

A Task group approver can undo any history record in the history panel. When the first action is a create, the undo action deletes the object and any changes associated with it. The object and any subsequent changes related to the object are removed. Any logged references of the object are also removed; including metadata, change history and references in other tables that have a foreign key pointing to the deleted object. Other task groups that referenced this object are affected.

When the action is a modification, the undo action deletes the changes made to the object. The changes related to the object are removed. Any logged references to such changes are also removed; including metadata, change history and references in other tables that have a foreign key pointing to the deleted changes. Changes made under other task groups are not affected.

When the action is a delete, the undo action restores the deleted object. The object is restored in the schema. This can mean just deleting any references of the action in the metadata. Any logged references to the original delete action are also removed; including metadata, change history and references in other tables that have a foreign key pointing to the deleted changes. Changes made under other task groups are not affected as part of the undo process.

Undo can give an error when there is a dependency. For example, undo a new category is not allowed it there is a new category entry in that category. You need to first undo the new category entry. Also, you cannot undo a delete SKU if the product is deleted, you must undo the product deletion.

Undo limitations

- Undo on a history record will only undo the changes associated with that record and are scoped to the store in the history record

- Current task group state cannot be 'Active' or 'Complete'

- Cannot undo a history record if there are dependent associated history records

- When you undo the deletion of a product, the product reverts to its approved version

- Page Layout tool is not supported when working on tasks in workspaces

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This slide lists the Undo limitations. Undo will only undo the changes associated with that record and is scoped to the store in the record. The task group state must be 'Inactive', 'Working', 'Cancelled', 'Commit failed, or 'Publish failed' in order to perform an undo. You cannot undo a history record if there are associated history records that are dependent on the one you are trying to undo. For example, you cannot undo a create category if you created products within that category. You must first undo all products associated with the category before you can undo the category. Also, if you try to undo a delete SKU, you will receive an error if the associated product is deleted. When you undo the deletion of a product, the product reverts to its approved version. For example, if a product has four SKUs, then you add or delete SKUs to the product, delete the product, and undo the delete, the product has four SKUs. To update the product to have the correct number of SKUs, add or remove SKUs to the product. Undo is not supported for the Page Layout Tool.

Undo limitations continued

- Undo is not supported for search term associations
- Promotion folders are not supported in workspaces
- Undo does not work for managed files that are uploaded with the Assets tool
- Undoing the deletion of a sales catalog category that has products that were copied/moved within the workspace before delete is not restored

Workspaces enhancements

This slide continues with the Undo limitations. Undo is not supported for search term associations. If you change search term associations under a task group, the History pane lists history records for each changed term. Trying to undo the changes in a history record results in this message: You cannot perform an undo when the object is of type SearchTermAssociations. To reverse changes to search terms, you must manually reverse the changes while working on the task that contains the changes. You can reverse the changes in the Management Center catalogs tool for the store. In addition, if you open a history record for a search term association, the main Search Term Associations page opens, rather than the specific search term association.

Undo does not work for promotion folders. Promotion folders are not supported in workspaces. If you add a promotion to a promotion folder, you cannot remove the folder relationship with the Workspace Management tool. You can remove the promotion from the folder with the Workspace Management tool, but the relationship still exists in the database. You must then manually delete the relationship from the database.

Undo does not work for managed files that are uploaded with the Assets tool. For example, if you upload, replace, or delete an image file under a task group with the Assets tool, you cannot undo this change with the Workspace Management tool. Instead, you must use the Assets tool to manually undo the change in the task group. For example: If you uploaded a new file, you can delete the uploaded file from the Assets tool if it is no longer needed. If you replace or delete the file, you can upload the previous version of the file. This limitation does not apply to attachments; if you create, update, or delete an attachment, you can undo those changes in the Workspace Management tool.

You can delete a sales catalog category even if it contains products. Doing so removes the products associated with the deleted category, but does not delete the products from the master catalog. Undoing the deletion of a sales catalog category restores the category to its previously approved state. Product associations that were already contained in the approved sales category are restored. However, products – either created in the workspace, or existing in approved content – that were copied or moved to this sales category from within the same workspace before the delete are not restored. They will not appear in the sales category after the undo of the deleted sales category. To restore the sales catalog category contents, drag products from the master catalog to the sales category.

Workspaces performance enhancements

- New workspace schema indexes
  - Example: WCW101.IWS<table>01 for all content managed tables
- Reduce deadlocks in workspace
- Improve performance in workspace commit
- Workspace post publish operation optional
- Post publish runs not by all resource managers but by specifying number of resource managers
- Resolved workspace commit/approval out of memory issue when there are too many objects being committed

Workspaces enhancements

For workspace, there are some performance enhancements as well. First new workspace schema indexes were added, for example WCW101.IWS<table>01 for all content managed tables. This will help reduce deadlocks in the workspace and improve performance in workspace commit. Workspace post publish operation is optional, and post publish runs not by all resource managers but by specifying number of resource managers. Finally, the workspace commit/approval out of memeory issue was resolved when there are too many objects (for example products) being committed.

Workspaces trace strings

- Workspace Management tool
  - Update the size of the trace files to 20MB and the number of historical trace files retained to 20
  - Enable these runtime trace string:
    - com.ibm.commerce.lobtools.*=all : com.ibm.commerce.foundation.*=all:
    - com.ibm.websphere.commerce.WC_SERVER=all:
      com.ibm.websphere.commerce.WC_WORKSPACE=all:
      com.ibm.websphere.commerce.WC_WORKSPACE_TOOL=all:
      com.ibm.websphere.commerce.WC_CONTENT=all

- Additional configuration steps
  - Follow the instructions in the WebSphere Commerce Information Center regarding enabling client side tracing for the Commerce Management Center

  http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.management-center.doc/tasks/ttflogtrace.htm

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This slide covers the trace strings to enable for Workspace Management Tool Issues. Ensure that the output is saved to a file and included with the information collected for this MustGather.

Workspaces useful information to know

- What kind of locking policy is being used?
- Are single-use or persistent workspaces being used?
- Is Quick Publish or Regular Publish being used?
- Troubleshooting workspaces:

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.workspaces.doc/refs/rwotroubleshooting.htm

- Known limitations in workspaces:

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.workspaces.doc/refs/rwoknownlimitations.htm

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This slide includes other useful information to gather and some important troubleshooting links.

Summary

- Workspaces review
- Workspaces enhancements

Workspaces enhancements

This presentation began with a review of workspace concepts. It then went over the new workspace history options of open, compare with approved content and undo which is helpful for the Workspace Task group approver.

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References

- Administering workspaces

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.workspaces.doc/concepts/cwoadminworkspacetop.htm

- Workspace management tool in Commerce Management Center

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/concepts/cwoworkspacetool.htm

- Working with roles in workspaces, task groups, and tasks

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.management-center.doc/tasks/twoworkingwithoverall.htm

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This slide contains some useful references.

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This module is also available in PDF format at: ../Workspaces.pdf

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